B-128

cc: Madrone USEPA

HERITAGE ENVIRONMENTAL SERVICES, INC.

P.O. Box 337
Lemont, IL 60439
Phone: 708/739-1151
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Part B/Permitting

July 27, 1993

Mr. Lawrence W. Eastep, P.E., Manager
Permit Section, Bureau of Land
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62794-9276

RE: 60-Day Responses to Permit Conditions
Heritage Environmental Services, Inc.
Canal Bank Road, N.E.
Lemont, Illinois 60439
ILD085349266
DLPC 0311620007

Dear Mr. Eastep:

This transmittal constitutes the responses to the items within the permit conditions which were required to be implemented within 60 days of the effective date of the permit. An extension to the 60 day response requirement was requested and granted extending the response period to July 28, 1993. Specifically this submittal addresses items under Section VI(E) - Contingency Plan. The following responses will follow the format delineated in the permit conditions (pages 75 - 79). A draft revised Contingency Plan is included in Attachment I for your review.

VI(E)(1) The Permittees shall implement the contingency plan contained in the approved permit application any time there is a (1) release of hazardous waste, (2) fire or explosion which involves hazardous waste or which occurs in areas where hazardous waste is treated, stored or disposed.

RESPONSE

Section D(ii) of the Contingency Plan describes the criteria used by Heritage for implementation of the plan. The quantities specified in this section will trigger implementation of the plan. As specified in this section of the plan , implementation shall occur for any fire or explosion. No changes were made to this section of the Contingency Plan.

VI(E)(2) The Permittees shall contact the local emergency response entities as soon as possible after the implementation of the contingency plan:

a. The entities which must be notified include:

i. Lemont Fire Department

ii. Lemont Police Department

iii. Local ESDA coordinator

b. The information which must be initially relayed to each entity includes:

i. The type of emergency (release, fire or explosion);

ii. The wastes involved in the emergency and the approximate quantity involved;

iii. An initial assessment of the conditions at the site;

c. If the Permittees are able to properly respond to the emergency without any aid from the entities identified in Condition VI(E)(12)(a) above, the Permittees shall notify each of these entities that the emergency situation no longer exists once all required emergency response and cleanup activities have been completed.

RESPONSE

Section D(iii) of the Contingency Plan specifies the notification procedures to be utilized upon implementation of the plan. Specifically, Section D(iii)(b) prescribes notification of the State and Local entities on the Emergency Notification List, which include the Lemont Fire Department, Illinois ESDA, and the Cook County Sheriff's Department. Changes to this section of the Contingency Plan include the addition of the Lemont Police Department to the Emergency Notification List and the specification of types of information to be initially relayed to each entity as outlined in VI(E)(2)(b) and VI(E)(2)(c) of the permit conditions.

VI(E)(3) Within sixty (60) days of the effective date of this permit, the Permittees shall demonstrate to the Agency that the following information has been provided to the local fire department, the local police department and all other agencies identified in 35 IAC 724.153(b). (Note that this information must be provided to these entities to ensure the requirements of 35 IAC 724.127 are met):

a. A list of all hazardous wastes to be managed at the facility (generic name) including the USEPA hazardous waste number;

b. A scaled drawing showing the location of all hazardous waste management units at the facility and all other areas where waste is managed at the facility (such as loading/unloading areas, etc.). This scaled drawing must also identify the entrances to the facility, roads within the facility and possible evacuation routes;

c. A description of the types of waste managed at each hazardous waste management unit at the facility;

d. A description of the procedures used to handle waste at the facility;

e. An estimate of the quantity of the various types of waste which may be present at the facility. An estimate of the typical inventory of wastes at the facility must also be included;

f. The following information regarding the properties of each waste managed at the facility:

Compound Name
USEPA Hazardous Waste Number
CAS Number
IDLH
TLVs (TLV-TWA, TLV-STEL, TLV-C)
Boiling Point (if applicable)
Vapor pressure at 68°F (20 C)
Lower explosion limit (if applicable)
Upper explosion limit (if applicable)
NFPA Designation (flammable or combustible)
Material Safety Data Sheets
Other appropriate characteristics (such as reactive class, etc.)
USDOT classification

g. A ranking of the compounds identified in Condition VI(E)(3)(f) above by IDLH (in order of ascending IDLH).

h. A ranking of the compounds identified in Condition VI(E)(3)(f) above by vapor pressure at 68°F (in order of descending vapor pressure);

i. An identification of the compounds listed in Condition VI(E)(3)(f) which are of most threat to human health and the environment. In compiling this list, it must be noted that both the IDLH and the vapor pressure at 68°F must be evaluated in identifying these compounds.

j. An identification of the products of incomplete combustion which would be generated if any of the wastes managed at the facility were to be engulfed in a fire. This information must be compiled for each waste to be managed at the facility. Examples of incomplete products of combustion which would be of concern are shown in the following table:

Waste-Type Involved in Fire	Product of Incomplete Combustion
Aliphatic chlorinated hydrocarbons	Phosgene, Hydrogen Chloride Gas
Non-substituted aromatics	CO,CO_2, Alcohols
Nitrated compounds	NO, NO_2,N_2O, (NO_x)
Sulfur bearing wastes	SO_2, SO_3, (SO_x)
Cyanide bearing wastes	Hydrogen Cyanide gas
Fluorine bearing wastes	Hydrogen Fluoride gas
Bromine bearing wastes	Hydrogen Bromide gas

The information identified in Condition VI(E)(3)(f) above must be provided for each of the identified products of incomplete combustion. In addition, a ranking of the wastes managed at the facility in relation to the potential products of incomplete combustion must be provided (based upon the IDLH of the potential products of incomplete combustion).

RESPONSE

Appendix II of the Contingency Plan has been expanded to include the information specified in VI(E)(3)(a), VI(E)(3)(e), VI(E)(3)(g), and VI(E)(3)(i). As per the telephone conversations between Mr. Robert Garcia of Heritage and Mr. Clarence Smith of the IEPA, the information requested in VI(E)(3)(j) is not required under the permit conditions. Materials were not sorted by vapor pressure as requested in item VI(E)(3)(h) because of

lack of consistency in reporting format in data sources. Vapor pressure was considered when assessing the possibility of off-site impacts during release scenarios.

With respect to item VI(E)(3)(f), the MSD sheets for the chemicals handled at the facility will be offered to the local police and fire departments and hospital, however the quantity of pages generated (over 1500 pages) may preclude the acceptance of these materials by those agencies. In addition, the MSD sheets are for pure materials and do not effectively reflect the potential mixtures of wastes present at the facility. Heritage has developed a list of materials accepted at the facility with the information specified in Item VI (E)(f) (approximately 150 pages) which will be offered to the local police and fire departments.

The list present in Appendix II of the Contingency Plan has been expanded to include an estimate of the maximum quantity of each waste at the facility and an estimate of the typical inventory. (Item VI(E)(3)(e))

The list present in Appendix VII of the Contingency Plan includes a description of the types of waste managed at each hazardous waste management unit at the facility. (Item VI(E)(3)(c))

Updated facility drawings have been developed and included in Appendix I of the Contingency Plan. (Item VI(E)(3)(b))

A general description of waste handling procedures is presented in Section IV(B) of the contingency Plan. (Item VI(E)(3)(d))

VI(4) Within sixty (60) days of the effective date of this permit, the Permittees shall provide documentation to the Agency that the agreements and arrangements identified below have been made. Where necessary, documentation must be provided that any agency identified in 35 IAC 724.153(b) declined to enter an agreement or arrangement. The specific arrangements and agreements which must be made include:

a. Arrangements to familiarize the local police department, local fire departments and other local emergency response teams with the layout of the facility, properties of hazardous wastes handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility and possible evacuation routes.

b. Agreements designating primary emergency authority to a specific police department and a specific fire department, where more than one police department and fire department might respond to an emergency. Agreements

should also be made with the other surrounding police and force departments to provide support to the primary emergency authorities;

c. Agreements with state emergency response teams, emergency response contractors and equipment suppliers;

d. Agreements to familiarize local hospitals with the properties of the hazardous wastes handled at the facility and the types of injuries or illnesses which could result from fires, explosions or releases at the facility.

e. Arrangements to identify a single local emergency response agency as the primary agency which will coordinate activities required by these agencies during an emergency at the facility.

The facility should also attempt to develop emergency plans and coordination agreements with the state and local emergency entities identified above. The detail of the arrangements made with the local and state emergency entities will be dependent upon the types of wastes handled at the facility and the potential need for the services of the various entities.

RESPONSE

A copy of the draft letter transmitting the revised Contingency Plan to the appropriate agencies is included as Attachment II to this transmittal. Documentation of their responses will be forwarded to the IEPA upon receipt and also included in the operating record.

VI(4)(c) Agreements with state emergency response teams, emergency response contractors and equipment suppliers.

RESPONSE

Heritage has an agreement with Heritage Remediation/Engineering, Inc. (HR/E) of Romeoville, Illinois to provide emergency response services in the event of a release. This is included as Appendix III of the Contingency Plan.

VI(5) The Permittees shall review all components of the contingency plan with the local emergency response entities during the month of October each year. Copies of the meeting notes and list of attendees shall be placed in the facility's operating record and be available to the Agency for review upon verbal or written request.

RESPONSE

This item is also addressed in the letter transmitting the revised Contingency Plan to the various agencies. These entities cannot be forced to attend an annual Contingency Plan review meeting, however, the invitation will be made through the transmittal letter. Copies of meeting minutes and list of attendees will be placed in the operating record subsequent to the initial meeting.

VI(6)(a) - VI(6)(b) - VI(6)(c)

The Permittee shall modify the contingency plan to describe in detail the possible hazards to human health or the environmental results from any emergency (release, fire, explosion). This information is necessary to the emergency coordinator to make a proper assessment of the emergency as required by 35 IAC 724.156(c) and (d). Specifically, the contingency plan must contain guidance as to the hazards associated with release and fires of the various hazardous wastes managed at the facility and the aerial impacts of such emergencies. Information which must be incorporated into the contingency plan includes:

a. The information identified in Conditions VI(E)(3)(f);

b. An evaluation of the hazards associated with a release or fire involving the various hazardous wastes which may be managed at the facility;

c. An evaluation of the area which may potentially be impacted during a release or fire involving the various hazardous wastes managed at the facility.

The information to be incorporated into the contingency plan, as required by this condition, must first be approved in writing by the Agency. A revised contingency plan which incorporates the required information must be submitted to the Agency within sixty (60) days of the effective date of this permit.

RESPONSE

Several accident scenarios have been modelled utilizing the Automated Resource for Chemical Hazard Incident Evaluation, Version 1.0 (ARCHIE). The scenarios modelled were based upon the data reviewed with respect to item VI(E)(3)(f), the typical quantity of material on-site, the IDLH and vapor pressure values of the materials. The results of the scenarios modelled have been incorporated into Appendix VIII and IX of the Contingency Plan. An assessment of the potential hazards resulting from a fire, explosion or release of

hazardous waste, based upon the ARCHIE results has also been added to Section IV(D)(vii) of the Plan.

VI(7) If it is determined that adverse off-site impacts are possible as a result of a release, fire or explosion involving hazardous wastes at the facility, the Emergency Coordinator shall assess the "hazard potential" associated with the existing conditions of the facility at the beginning of each operating shift. The items which must be considered in this assessment include (1) the weather conditions (wind speed, wind direction, atmospheric stability, etc.) and associated dispersion characteristics of the atmospheric conditions, (2) the volume of the various types of wastes present at the facility, (3) the hazardous characteristics of the wastes on-site, including the products of combustion which may be produced in the event of a fire, (4) the emergency situations which may occur that day and (5) the waste management activities expected to be carried out that day. An evaluation of the potential off-site impacts through the use of commercially available models should also be completed as part of the assessment. The IEPA is currently using the computer based model titled "ARCHIE" which is available from the Federal Emergency Management Agency (202/643-3484). These evaluations shall be documented in the operating record and be readily available for review by the Emergency Coordinator and the emergency response agencies in the event of an emergency.

RESPONSE

Based upon review of the modeling results performed for item VI(6) above it was determined that several chemicals, if released, have the potential for adverse off-site impact. Heritage has placed these materials into a special precaution list and has developed specific procedures to be implemented when any of these materials are on-site. Section IV(D) and Appendices VIII and IX of the Contingency Plan contain additional details.

VI(8) Pursuant to 35 IAC 724.132, the facility shall provide on-site all additional emergency equipment deemed necessary by the primary emergency response agencies for the implementation and execution of the facility's contingency plan.

RESPONSE

The maintenance and inspection of emergency equipment is described in Section IV(F) of the Plan. An inventory of emergency equipment located at the facility is provided in attachment V of the Plan and a figure showing the location of emergency equipment is provided in attachment VI.

VI(9) An independent fire control professional in conjunction with the local fire department shall evaluate the adequacy of the facility's fire prevention equipment and procedures. The Permittees shall make any and all changes to the fire control equipment and procedures recommended as part of the independent evaluation, subject to Agency approval.

RESPONSE

Fire Control, Inc., an independent fire control agency inspected the facility on June 16, 1993. A copy of their assessment report is included as Attachment III to this letter. No deficiencies were noted in the report.

Should you have any questions or require additional information, please contact the undersigned at (708)739-1151 or Ron Wilkins at (708)378-1600.

Sincerely,

HERITAGE ENVIRONMENTAL SERVICES, INC.

Robert D. Garcia

Robert D. Garcia
Plant Manager

RDG/kmt
Enclosures
pc: Clarence Smith, IEPA
Compliance Department, HES-Indianapolis
Ron Wilkins, HR/E-Romeoville

ATTACHMENT I

DRAFT CONTINGENCY PLAN

Chemical Safety/Contingency Plan
for

HERITAGE ENVIRONMENTAL SERVICES, INC.

Canal Bank Road, N.E.
Lemont, IL 60439

Public Act 84-852,
Illinois Chemical Safety Act
Title 35 Environmental Protection Act
of the State of Illinois
Contingency Plan and Emergency Procedures

HERITAGE ENVIRONMENTAL SERVICES, INC.
Lemont, IL
Chemical Safety/Contingency Plan

TABLE OF CONTENTS

I. GENERAL INFORMATION

Name of Facility: Heritage Environmental Services, Inc. (HERITAGE)

Type of Facility: Industrial Commercial Waste Management Facility

Facility Location: The north bank of the Chicago Sanitary and Ship Canal, mile 301.2; 1/2 mile off the Lemont Highway bridge on the south side of the Des Plaines River.

Mailing Address: Canal Bank Road, N.E.
P. O. Box 337
Lemont, IL 60439
Telephone: (708) 739-1151

Facility Layout: Refer to Appendix I containing two Site Plans which delineate the location of all waste management areas (existing - Figure I, and proposed - Figure II).

NOTE: The stabilization facilities in Figure II are proposed for development contingent upon confirmation of need and economics.

An inventory of all existing and proposed tank storage and treatment systems, including capacities, is incorporated in Appendix VII as Table D-1. Additionally, the intended contents for each tank is identified by HERITAGE "product codes" as enumerated in Section C of the Part B permit application (Waste Analysis Plan).

HERITAGE is a commercial industrial waste storage and treatment facility who also engages in the cleaning of industrial and marine storage vessels. Because of these activities, HERITAGE has located on-site a variety of hazardous materials and wastes which may include ignitable, corrosive, reactive, and toxic substances. For this reason, HERITAGE has established procedures for spill prevention, control and countermeasures in the form of an SPCC Plan, and also with this plan has established response strategies to be implemented in the event of a sudden or non-sudden release of hazardous wastes or materials into the air, water or land.

The facility currently operates twenty-four (24) hours a day, five days a week (Monday through Friday).

II. PURPOSE

To establish a written plan and procedure for HERITAGE to respond to a sudden release or non-sudden release of chemical substances into the environment, and to improve the ability of State and local authorities and emergency services to respond to such a release.

III. COMMITMENT TO RESPOND TO EMERGENCIES

It is the policy of HERITAGE to operate each facility in a safe, environmentally conscientious manner and commit whatever resources are necessary to carry out the intent of this Plan.

IV. CHEMICAL SAFETY / CONTINGENCY PLAN DESCRIPTION

A. Distribution and Maintenance of the Plan

Copies of this Plan are maintained in the following offices/locations on-site:

Plant Manager's Office
Supervisor's Room
Laboratory

Each Emergency Coordinator will keep a copy at the office and at home.

In accordance with 35 IAC Section 725.137, additional copies of the site's current Plan have been given to the following Federal, State and local authorities:

Fire:		Lemont Fire Department
Police: Primary --	(1)	Cook County Sheriff's Dept.(Cook County ESDA)
	(2)	Lemont Police Dept.
Trauma Center:	(1)	Silver Cross Hospital
	(2)	Palos Community Hospital
Agencies:	(1)	Illinois Emergency Services, and Disaster Agency

(2) Illinois Environmental Protection Agency

(a) Emergency Response
(b) Land Pollution Control

Other:

(1) Illinois State Police
(2) U.S. Coast Guard, Marine Safety Officer
(3) Mayor of Lemont
(4) Metropolitan Water Reclamation of Greater Chicago

In the event significant changes to the Plan are implemented, all of the above-mentioned parties will be sent a revised copy of the Plan.

B. Description of Chemical Substances Used or Stored On-Site

Current inventories of materials located in the tank farm, container storage area(s) and fixation building treatment structures are kept in the plant supervisor's office. A duplicate inventory record is kept in the fire-proof vault located in the general offices.

Generally, HERITAGE is permitted to accept the following types of materials:

1. Flammable and combustible materials for blending into supplemental fuels to be used in cement kilns or other industrial boilers and furnaces (stored and/or treated in the tank farm, or stored/processed in the drum storage building or outdoor container storage area). These materials are typically designated as ignitable hazardous wastes (EPA waste code D001). A listing of typical D001 materials and specific information regarding each is presented in Appendix IIa.

2. Non-recoverable organic materials for blending for purposes of off-site incineration (stored and/or treated in the tank farm, or stored/processed in the Container Storage and Processing Building, or stored in the outdoor container storage area);

3. Acid/caustic materials for purposes of neutralization (stored in the drum storage building and/or stored/processed in the fixation building or dedicated lime slurry tank within tank farm). These materials are

typically designated as corrosive hazardous wastes (EPA waste code D002). A general listing of typical D002 materials and specific information regarding each is presented in Appendix IIb.

4. Inorganic-based materials for stabilization in order to render the material more amenable to disposal and to meet current EPA prescribed treatment standards (stored in the Container Storage and Processing Building and stored/treated in the fixation building (proposed)). These materials are typically designated as metal bearing hazardous wastes (EPA waste codes D004 through D011, and K002 through K008, K046, K048 through K052, K061, K062, K069, K071, K086, K100, K106). A listing of these materials and a specific description of each wastestream is presented in Appendix II.

5. Aqueous cyanide wastewaters for storage and treatment (stored within the Container Storage and Processing Building and stored /treated in the fixation building (proposed)). These materials are typically designated as cyanide bearing hazardous wastes (EPA waste codes F006 through F012, and F019). A listing of these materials and a specific description of each wastestream is presented in Appendix II.

6. Aerosol commercial consumer commodities for crushing in order to facilitate recovery and/or proper disposal of the propellant gases and active ingredients (stored/processed in the container storage and processing building);

7. Small (labpack) quantities of commercial chemical products and chemical manufacturing intermediates for purposes of depacking, consolidation and treatment/disposal coordination, both on-site and at off-site facilities (stored in the container storage areas, and the exterior hazardous materials storage unit (proposed)). These materials are typically designated as listed hazardous wastes (EPA U-listed and P-listed wastes). A listing of these materials and a specific description of each wastestream is presented in Appendix II (these materials are also in a list sorted by IDLH in Appendix II(d); and

8. Storage, characterization and staging of waste materials associated with emergency response activities (stored and/or treated in accordance with the above described items).

Appendix II provides a list of materials that HERITAGE is permitted to accept for storage and/or treatment as prescribed by the facility's RCRA Part

A permit. The list identifies each material by EPA Industrial Hazardous Waste Identification Number and provides a general description or name of each material, and identifies the rationale for being designated a hazardous waste, the maximum quantity and typical inventory on-site, and the typical areas where the materials are located.

Discussion of storage and use practices, secondary containment structures, and inspection procedures:

HERITAGE has products stored in bulk (including hazardous and non-hazardous waste materials) and commercial products used for maintenance. These materials are stored in accordance with safe work practices, including segregation of materials by hazard class and separation of incompatible materials. Commercial products are stored in accordance with manufacturer's recommendations and used only as intended.

Bulk materials including wastes are stored in mild steel storage tanks or Department of Transportation (DOT) approved containers. These materials are segregated by hazard class and incompatible materials are kept separated. The storage areas are surrounded by concrete containment walls creating a containment volume equal to 110% of the rated storage capacities. Storage tanks are inspected daily.

Containerized materials including wastes are stored either in the drum storage building, outside drum storage dike, enclosed van trailers, or specially engineered and totally enclosed storage units (designed for specific labpack materials). These materials are segregated by hazard class and incompatible materials are kept in separate containment areas. The drum dike is surrounded by concrete containment walls creating a containment volume equal to 110% of the rated storage capacities. The van trailers are parked on an asphalt pad with a containment volume equal to 10% of the rated storage capacities. Van trailers and storage containers are inspected daily.

Cardboard shipping containers which are palletized (containing consumer commodities) are stored in the container storage and processing building. Only compatible consumer commodities are stored in this containment area. The storage area and containers are inspected daily.

Bulk roll-off containers are stored on concrete pads (located east of the water storage tanks, within the fixation building on the unloading pad, and southerly adjacent to the shredder). The containers respective to the described locations are used to store RCRA empty crushed containers and non-

hazardous solid sludge, stabilized wastes, or shredded/crushed debris. Stabilized wastes are transported off-site for disposal usually within a few days. Crushed/shredded materials are generally shipped off-site for purposed of recycling. Each concrete pad has a containment volume equal to 10% of the rated storage capacity of the roll-off boxes. These storage areas are inspected daily.

C. Probable Causes and Route of Release

Discussion of facility drainage controls, spill prevention measures:

General surface drainage for the facility (outside of the spill retention or storage containment areas) is to the canal either by direct gradient or by a ditch on the western portion of the property. The areas which drain to the canal are, for the most part, driveways and parking lots for employee vehicles. The drainage ditch is equipped with a control gate that can be closed for purposes of containment and recovery in the event materials should appear in or on the surface waters during a spill. ~~The capacity of the ditch is several thousand gallons.~~

There are extensive spill control and counter measures at the Lemont Facility. The measures include: spill containment structures; catchment and retention basins; carbon canister vapor recovery systems; daily, weekly and annual inspections; a contingency plan for emergencies; extensive training of personnel to handle emergencies; and proper operation of the plant and equipment.

The tank farm storage area, fixation building storage systems and the outside drum storage area are entirely surrounded by concrete retaining walls to create areas equivalent to 110% of the total capacity of the storage containers. This prevents loss of materials to the canal or soil.

HERITAGE's enclosed van trailers storage area is on an asphalt containment pad creating an area equivalent to 10% of the total rated capacity of the van trailers. This prevents loss of the materials to surface waters or the canal.

The unloading dock for the outdoor drum storage area is designed in such a manner that drums, once placed on the dock will drain into the storage area within the retaining walls.

The new container storage and processing building houses the Drum Processing Unit and the Aerosol Can Product Recovery Unit. This building

is entirely sprinkled for fire suppression. The flammable storage area is separated from the boiler by means of a fire protection wall. The entire building has secondary containment and leak detection. Construction slopes inward with more than adequate containment in areas for spills or leaks (which are addressed immediately). The Aerosol Can Product Recovery Unit ~~shredder~~ and related roll-off box storage area are under-roof. All dock access areas are depressed for ease of on/off loading (both at docks and roll-off~~/shredder~~ areas). The Aerosol Can Product Recovery Unit ~~and shredder unit~~ area is equipped with an individual LEL sensor mounted on the unit and an exhaust fan on the unit which removes flammable vapors. A Nitrogen purge is done each day prior to unit startup ~~fire detection and CO2 fire suppression systems~~. The Drum Processing Unit has a Nitrogen blanketed atmosphere, O_2 and LEL level sensors and an emergency CO_2 suppression system. Within the drum storage and processing building, LEL detectors have also been installed to monitor for potentially dangerous organic vapor levels.

The proposed building housing the fixation treatment facilities (including the cyanide storage tanks, and acid/base neutralization tank and filter press) ~~is~~ will be constructed with inward slopes, spill retention sumps and secondary containment structures. Transfer of bulk materials from tankers or pneumatic trucks are conducted within secondary containment structures. Loading and unloading areas for bulk solids/sludges are located under roof within secondary containment and leak detection systems. The bulk dust storage silos related to stabilization operations are equipped with baghouse emission controls in order to eliminate releases of materials to the atmosphere during unloading.

The proposed labpack storage units are specifically designed and constructed for storage and containment of inherently hazardous materials. The units are totally enclosed steel structures with fiberglass flooring and are engineered with exhaust ventilation, flame arresters and sump containment systems. The unit is designed with secondary containment adequate for more than 10% of the volume of labpack materials stored. Additionally, all labpacks are packaged with compatible absorbent materials to ensure the absorption and containment of materials within the drum. One proposed labpack structure is specifically designed for the safe handling of gaseous materials. This structure is equipped with specific gas detection systems and is designed for the containment of gaseous releases should they occur.

Transfer of bulk organic-based materials from tankers or vacuum trucks must be done at the transfer station on the north side of the tank farm. Any vehicle loading or unloading will be positioned in ~~the approximate center of~~

the 5,000 gallon spill containment/collection sump built into the asphalt drive. This sump area is so designed to keep the material from flowing or migrating away from the transfer area and to facilitate recovery.

~~Transfer of bulk materials from barges or other vessels moored along the dock area has the potential for loss to the canal due to failed couplings or hose rupture. Materials lost there have potential for flowing into the canal.~~ HERITAGE has an agreement with Heritage Remediation/Engineering (HR/E) to provide emergency response services in the event of any unexpected sudden or non-sudden release of oil or hazardous waste materials or constituents into the water, soil, or air at any location on the plant property. Enclosed as Appendix III is an acknowledgement of agreement for emergency response services signed by HR/E. The agreement documents the commitment by HR/E to immediately respond to emergency incidents at the facility. ~~HERITAGE has also established a Contingency Plan in the event of emergencies.~~ HERITAGE has on-site, (or available upon notification during non-business hours) supervisory personnel, labor, materials and equipment especially suited to the safe and responsible containment, control and recovery of any material in the event of a release. A complete list of resources available to Heritage is found in the Appendix V. This includes but is not limited to, booms, absorbent materials, pumps, hoses and appropriate personal protective equipment. HERITAGE (and HR/E) employees are trained and experienced in handling hazardous materials as part of their normal job activities (emergency hazardous materials spill response contractors and industrial maintenance of hazardous material liquid transportation and storage equipment).

Although HERITAGE has taken the aforementioned precautions, an unexpected and unintentional release may occur because of equipment failure, operational error, natural disaster, weather, or an unforeseen external cause. In the event such a release occurs within the diked areas of the plant or within ~~over~~ the spill retention basins of the loading/unloading areas, liquids, solids or sludges will remain contained.

Although these events are unlikely to occur the following discussion presents potential accident scenarios at the facility. Potential incidents/releases are of three major types at the facility. Each of these types of incidents potentially has both primary and secondary consequences.

The most likely scenario is a release of material in the form of a spill from a tank failure or during material transfer operations. In the event a release of this type ~~spill~~ occurs outside of the secondary containment ~~designated~~ areas,

it may be possible for materials to migrate ~~be lost,~~ by drainage, to the Canal. ~~Materials spilled on the ground are more likely to migrate across its surface than to penetrate to any significant depth because of the proximity of the underlying bedrock.~~ If this should occur, Heritage has made a dedicated commitment in ~~its Chemical Safety/Contingency~~ this Plan and the SPCC Plan to respond to such incidents and to contain, control and recover the released ~~lost~~ materials immediately.

Secondary consequences of a release of this type include evolution of toxic vapors into the atmosphere, and in the case of ignitable materials the potential for fire.

The second scenario involves a fire within the facility which ignites a waste material. Primary consequences of an event of this type are the potential ignition/explosion of other waste materials and the associated thermal radiation hazards. Secondary consequences of an incident of this type include the evolution of toxic vapors and combustion products into the atmosphere, and the potential for fire fighting water to carry contaminants off-site.

The third scenario involves an explosion within the facility which results in release of waste material. Primary consequences of an event of this type are the potential ignition/explosion of other waste materials and the associated thermal radiation hazards. Secondary consequence of an incident of this type is the release of pressurized gases and combustion products into the atmosphere, and the potential for fire fighting water to carry contaminants off-site.

D. Response Procedures

1. Description of Alarm System

An electronic alarm system along with the telephone paging system is used to warn of an emergency situation. In the event of an emergency, a single continuous tone is to be sounded until help arrives. Alarm activation switches are located at strategic points in the plant, lab and maintenance shop. The Emergency Coordinator will be notified in order that implementation of the Contingency Plan can be initiated. The Emergency Coordinator will notify the appropriate Federal, State and local agencies as necessary.

2. Criteria for Implementing the Contingency Plan

Oil/Hydrocarbon Treatment System

The two types of materials handled in this area are oil/water mixtures and supplemental fuel. The major hazard is ignitability of these wastestreams. The volumes for implementation of the Contingency Plan are as follows:

Oil/Water mixture	5,000 gal.
Supplemental Fuel	1,000 gal.

Fixation Building

Materials processed in the fixation building are listed below along with spill volumes/weight for implementation of the Contingency Plan.

BOD Waste	5,000 gal.
Chromic Acid, Waste Acid, Waste Caustic, Pickle Liquor	200 gal.
Hydroxyl Sludges, Plating Sludges, Inorganic Solids/ Sludges, Solid Chromic Acid	1,000 gal.
Waste Nitric Acid	100 gal.
Solid Cyanide Treatment Sludges	1,000 gal.
Cyanide Liquid	50 gal.

Drum Storage/Repack Area

The materials to be processed and/or stored in these areas include ignitables, corrosives, reactives and toxics. The volumes of material spilled to implement the Contingency Plan are as follows:

Ignitables	200 gal.
Corrosives	200 gal.
Reactives	200 gal.
Toxics	200 gal.

Fire

The Contingency Plan will be implemented in the event of any fire that has progressed beyond an incipient stage.

Explosions

The Contingency Plan will be implemented in the event of any explosions.

Release of Harmful Vapors

Any release of harmful vapors or gasses will cause implementation of the Contingency Plan.

Should the Emergency Coordinator determine an incident involving less volume than outlined above poses a serious threat to human health or the environment the Contingency Plan will be implemented immediately.

Included in Appendix IX is a list of waste materials which warrant special precautions based upon the modeling results presented in Appendix VIII. This list shall be reviewed by the shift supervisor at the beginning of each operating shift and he shall determine whether any of the materials listed are present on-site. The shift supervisor shall also complete a Special Materials Tracking Form for any material on the list which is brought on-site during that operating shift. The Special Materials Tracking Form will be utilized to determine the exact location of the material in the event of a release, explosion or fire.

When a material listed in Appendix IX is present on-site, the shift supervisor shall document the wind speed and direction, atmospheric stability conditions, the volume of the material(s) present, and waste management procedures which may involve the particular material during that operating shift. Based upon the items above the shift supervisor shall consider the characteristics of the waste material and potential emergency situation which may occur with respect to that waste. The shift supervisor shall evaluate the potential for off-site impacts by using the Automated Resource for Chemical Hazard Incident Evaluation (ARCHIE). The shift supervisor will have a data sheet of the Special Precaution Materials, which indicates all of the pertinent physical data regarding each compound, required by the

ARCHIE model. A modeled event indicating a downwind distance to the Acceptable Exposure Limit (AEL) of 400 feet or greater shall be considered to have the potential for off-site impacts.

In the event a material has the potential for off-site impacts as determined above, the shift supervisor shall contact the Lemont Police Department and inform them of the material present on-site, summarize the information gathered to assess the potential for off-site impacts (wind speed, direction, etc.), inform them of the results of evaluation procedures, and recommend public protective actions to be implemented in the event of a release. This activity is performed as a precaution, should a release occur involving the material, the local authorities have been informed of the potential impacts and can implement public protective actions in a timely manner.

3. Notification and Assessment of Incident

The employees of the Heritage Treatment Center will notify the shift supervisor of any incident (spill, fire, or explosion) which results in the release of hazardous materials to the environment. The methods used to determine whether there is a release include visual, audible, olfactory, ~~by sight, sound, odor~~, skin and eye irritations, or any other means.

The employee which observes or suspects a release based upon the above criteria shall note the exact location where the release occurred, specific observations made (how incident was discovered) and nature of the material involved (if known). If the incident is an emergency situation, the employee shall immediately activate the alarm system and report the information to the shift supervisor. In non-emergency situations, this information shall be reported to the shift supervisor immediately.

The shift supervisor shall make any additional observations required to safely determine the nature of the incident and, depending upon the nature and extent of the incident shall notify the Emergency Coordinator if necessary, and direct the control/containment of the release when possible.

Upon determining that an incident or emergency situation exists which meets the criteria set forth for the implementation of the Contingency Plan, the Emergency Coordinator, or Alternate, shall;

a. Activate internal facility alarms or the telephone paging communication system to notify on-site personnel (if this has not already been accomplished by the Supervisor on duty given the need for immediate response).

b. Immediately determine whether a material on the Special Precaution Waste Materials list is potentially involved in the incident. This determination shall be based upon the information regarding the location of the incident as reported by the shift supervisor, and the location of the material as specified on the Special Precaution Waste Materials tracking form. Consideration must be also given to:

- Prevailing weather conditions
- Dispersion by wind of gases or vapors
- Location of human populations and their likelihood of exposure

If the incident potentially involves a material on the Special Precaution Waste Material list and a release, fire or explosion which could threaten human health or the environment, outside the facility, the Emergency Coordinator shall immediately notify the Lemont Police Department regarding the nature of the incident and request them to implement public protective actions as per the pre-advisement given when the material was brought on-site.

Otherwise;

c. Immediately identify the character, exact source, amount and areal extent of released material. Identify place, personnel and equipment involved. The Emergency Coordinator, or Alternate, may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

d. If appropriate and safe the Emergency Coordinator shall appoint employees to a Spill Response Team who shall follow the procedures outlined in Section D(v) of this Plan.

e. Notify the appropriate State and local agencies, or response organizations listed in Section IV(D)(iv) on page 19 of this Plan if their assistance is required. Immediately advise the facility manager of the incident. ~~with designated response roles.~~

This notification must include:

(1) Name and telephone number of reporter;

(2) Name and address of facility;

(3) Time and type of incident (e.g., release, fire);

(4) Name and quantity of material(s) involved, to the extent known;

(5) The extent of injuries, if any; and

(6) The possible hazards to human health or the environment, outside the facility;

f. The facility manager will assess the incident and determine whether the Illinois Environmental Protection Agency, and/or the National Response Center should be notified. If required the facility manager shall make such notifications and include the information specified in item (e) above.

g. Concurrently, the Emergency Coordinator, or Alternate, must assess both the primary and secondary consequences for possible hazards to human health and the environment that may result from the release, fire or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating or asphyxiating gases that are indirectly generated, or the effects of any hazardous surface water runoff from water or chemical agents used to control fire and heat-induced explosions).

(1) Criteria for assessment will include knowledge of the material readily available from on-site preacceptance forms, analytical data, chemical dictionaries, compatibility charts, including MSDS of virgin chemicals that outline physical and toxic properties, and reaction products.

(2) Consideration must be also given to:

- Prevailing weather conditions
- Dispersion by wind of gases or vapors

- Location of human populations and their likelihood of exposure

h. Upon determining that the possibility exists for off-site impacts as a consequence of toxic vapor or combustion products release, or based upon the release of material to the Canal ~~facility has had a release, fire or explosion which could threaten human health or the environment, outside the facility, he must report these findings as follows~~ the Emergency Coordinator, or Alternate shall:

(1) Immediately notify the appropriate local authorities if public protective actions are ~~evacuation of local areas is~~ advisable, . The Emergency Coordinator, or Alternate, must be available to help appropriate officials decide the applicable method of public protection ~~whether local areas should be evacuated~~. In most cases the likely method will be advisement to the public to remain indoors with windows and doors closed until the hazard passes.

i. During an emergency, the Emergency Coordinator, or Alternate, must take all reasonable measures to ensure that fires, explosions, and releases do not occur, recur or spread to other hazardous waste at the facility. The measures must include, when applicable:

(1) Stopping processes and operations;

(2) Containing and recovering released materials;

(3) Removing or isolating materials which exacerbate the situation;

(4) Isolating the site and prohibiting entry by unauthorized personnel;

j. If the facility stops operations in response to a fire, explosion or release, the Emergency Coordinator, or Alternate, must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate;

k. Immediately after an emergency, the Emergency Coordinator, or Alternate, must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility;

(1) Recovered waste, contaminated soil or water generated from an incident ~~can~~ may be treated on site. The QA/QC Laboratory is available to provide pre-qualification analysis and together with analytical results maintained on site for all waste materials received, the material will be categorized ~~placed~~ into a HERITAGE product number ~~(see WAP)~~ and treated accordingly.

(2) Should the material need to be shipped off-site (e.g., incineration) the material would fall under HERITAGE Product Number 70 and be repackaged and stored according to those specifications ~~(see WAP)~~.

l. The Emergency Coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed;

(a) When an incident has occurred treatment and storage operations in the affected area do not proceed until cleanup is complete.

(b) The QA/QC laboratory will provide analytical services, primarily compatibility testing.

(c) Proper hazard class and compatibility segregation methods are employed until cleanup is complete.

(2) All emergency equipment listed in the Contingency Plan is cleaned and fit for its intended use before operations are resumed;

(a) All emergency equipment used in an incident is decontaminated, properly disposed of, or resupplied before operations resume.

(b) A safety equipment inspection of any equipment used must be completed before returning the equipment to its respective storage location.

m. HERITAGE will notify the Regional Administrator of U.S. EPA, and appropriate State and local authorities, that the facility is in compliance with paragraphs i.) of this section before operations are resumed in the affected area(s) of the facility;

n. HERITAGE will note in the operating record the time, date, and details of any incident (including an activity log, laboratory analysis, record of treatment, storage, or disposal, and any medical or accident reports) that require implementation of the Contingency Plan; within (15) days after the incident submit a written report on the incident to the Illinois Environmental Protection Agency, Land Pollution Control. The report must include:

(1) Name, address and telephone number of the owner or operator;

(2) Name, address and telephone number of the facility.

(3) Date, time and type of incident (e.g., fire, explosion).

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable;

(7) Estimated quantity and disposition of recovered material that resulted form the incident.

4. Emergency ~~Services~~ Notification List:

In the event of implementation of the Contingency Plan or for other reasons as appropriate ~~a release of a chemical substance~~, the following persons, services or agencies should be ~~appropriately~~ notified:

Emergency Coordinator	Telephone Numbers
Paul Zajec	(708) 739-1151 (Work) Non-Responsive (Home) Non-Responsive (Beeper)
ADDRESS:	Non-Responsive

Alternates:

Emergency Coordinator	Telephone Numbers
Bob Garcia	(708) 739-1151 (Work) Non-Responsive (Home) (Beeper)
ADDRESS:	Non-Responsive
Vince Zajec	(708) 739-1151 (Work) Non-Responsive (Home) (Beeper)
ADDRESS:	Non-Responsive
Doug Plesner	(708) 739-1151 (Work) Non-Responsive (Home) (Beeper)
ADDRESS:	Non-Responsive

Coordinated Emergency Services		Telephone
Fire:	Lemont Fire Dept.	708-257-2221
Police:	Cook County Sheriff's Dept.	708-458-1000
	Lemont Police Department	708-257-2226
Ambulance:	Lemont Fire Dept.	708-257-2221
Trauma Center(s):		
	Silver Cross Hospital	815-740-7050
	Palos Community Hosp.	708-361-4500
	Loyola Hosp.-Burn Ctr.	312-531-3000

Emergency Response Agencies	Telephone
National Response Center	800-424-8002
Illinois Emergency Services & Disaster Agency	217-782-7860
Metropolitan Water Reclamation District of Greater Chicago	312-751-5600
U.S. Coat Guard, Marine Safety Office, Chicago	312-353-1226
Illinois State Police (Haz. Mat. Officer)	815-726-6291

Emergency Response Contractor	Telephone
HERITAGE (Chicago)	708-378-1600
HERITAGE (Indianapolis)	317-243-7475
HERITAGE (Louisville)	812-283-5875
HERITAGE (St. Louis)	314-521-3600

Information which should be relayed to each entity notified includes;

- The type of emergency (release, fire, or explosion);

- The wastes involved in the emergency and the approximate quantity involved;
- An initial assessment of the conditions at the site.

Entities notified shall also be advised when the emergency situation no longer exists.

5. Specific Emergency Response Procedures

In the event of a fire, explosion, or release of a chemical substance into the air, water, or soil, the Emergency Coordinator will be contacted immediately and shall assume responsibility for implementing the Contingency Plan and/or responding to the emergency as necessary. Any employee who discovers an emergency situation, shall immediately activate the alarm system, and notify his supervisor or other responsible person. The supervisor shall immediately notify the Emergency Coordinator as listed above.

The Emergency Coordinator shall follow the guidelines presented in Sections IV(D)(ii) and IV(D)(iii) for the assessment of the incident.

HERITAGE considers personnel safety paramount IN THE EVENT OF PERSONAL INJURY NOTIFY THE EMERGENCY COORDINATOR IMMEDIATELY. Arrangements will be made to provide medical aid and/or treatment immediately. A Supervisor and/or the Emergency Coordinator (or alternate) shall direct emergency procedures.

The following Specific Emergency Procedures should be observed and followed during potential or actual emergency situations:

a. Oil Spills

In the unlikely event of an oily liquid spill or tank rupture sufficient equipment is on hand to engage a two-phase containment and clean-up effort. Equipment on hand includes floating containment booms and oil absorbent booms and pads (located in the maintenance shop) which are designed to be placed on the surface of the oily liquids entrapping the oil separating it from the aqueous liquid fraction. Emergency response and clean-up equipment is also located in the

Maintenance Shop. ~~This building contains tools to stop and prevent the flow of any spillage.~~

If an oil spill occurs, immediately;

(1) Determine source of leak or spill;

(2) If possible, try to control or minimize the incident by containing the spill, such as closing a valve or stopping a pump;

(3) Should the spill be of such volume or nature as to represent a potential health risk, DO NOT PROCEED, EVACUATE THE AREA AND;

(a) Notify the Supervisor and Emergency Coordinator and follow all his specific instructions.

(b) Assist ~~directed (3)~~ members of the Spill Response Team which will be outfitted with appropriate personal protective equipment ~~suit and~~ to perform ~~commence~~ rescue and response/remediation efforts as necessary.

(4) Isolate and contain the leaking material if possible by closing valves, stopping pumps, etc.

(5) Seal off drains, sewers, and drainage ditches to prevent loss of the material.

(6) Monitor area of spill to insure that it is totally contained.

(7) Emergency Coordinator and Spill Response Team begin and complete clean-up.

(8) The material from the clean-up is handled according to directions from the Plant Manager.

b. Non-Oil Liquid Spills

Non-oil liquid spills can be of the following types:

(1) Caustic wastewater

(2) Acidic wastewater

(3) Liquid sludges

If a non-oil liquid spill occurs, immediately:

(1) Determine source of leak or spill (e.g., storage tanks or tank trucks);

(2) Determine type of material-caustic wastewater, acidic wastewater, liquid sludge;

(3) If possible, take any immediate action as required, such as closing a valve or stopping a pump.

(4) Should the spill be of such volume or nature as to represent a potential health risk, DO NOT PROCEED, EVACUATE THE AREA AND;

(a) Notify the Supervisor and Emergency Coordinator and follow all specific instructions.

(b) Assist ~~directed (3)~~ members of the Spill Response Team which will be outfitted with appropriate personal protective equipment ~~suit and~~ to perform ~~commence~~ rescue and response/remediation efforts as necessary.

(5) Isolate leaking material if possible by closing valves, stopping pumps, etc.;

(6) Seal off drains, sewers and drainage ditches to prevent loss of the material.

(7) If leak is from tank truck move truck such that all leakage is contained within diked area.

(8) If leak if from a tank or defective valve, attempt to transfer material to a second tank of similar service (refer to Tank System Leaks and/or Spills);

(9) Monitor area of spill to insure that it is totally contained.

(10) If spill is a caustic or acidic material the Emergency Coordinator and laboratory personnel will determine if neutralizing chemicals are required in the clean-up.

(11) Handle material resulting from clean-up according to directions from the Plant Manager.

c. Toxic or Choking Vapors or Gases

The possibility of generating toxic or choking gas and vapors by inadvertent mixing of incompatible wastestreams is eliminated by the QA/QC Laboratory procedure of screening all incoming material(s). Additionally, equipment failure are greatly minimized or virtually excluded by inspection; however, accidents may occur and specific emergency response activities must be initiated immediately.

The Emergency Coordinator will call the local emergency services as necessary and advise them of the nature of the release, the materials involved, and the possible need for notification, shelter in place, or evacuation of downwind potential receptors ~~businesses~~.

When it is determined that an incident of this type exists (usually visually apparently, or monitor indication accompanied by physical symptoms i.e., eye tearing, skin irritation, etc.) immediately:

(1) Notify the Supervisor who will then notify the Emergency Coordinator;

(2) Evacuate all personnel from immediate area;

(3) Close all exterior doors to contain any release that may have occurred in the main portion of the plant (fixation building) thereby allowing the scrubber to handle (treat) any such release of gases or vapors.

(4) Should evacuation be necessary as determined by the Supervisor or Emergency Coordinator, use the telephone

paging system to announce that the building is to be evacuated and immediately notify all plant employees via the alarm signal (continuous short blasts).

(5) Assist members of the Spill Response Team which will be outfitted with appropriate personal protective equipment to perform rescue and response /remediation efforts as necessary. The Spill Response Team shall perform the following tasks. ~~As directed by the Supervisor or Emergency Coordinator, a minimum of (3) Spill Response members are suited with fully encapsulating garments and self contained breathing apparatus.~~

(6) Investigate and isolate the problem. Check flow sources, tank pH, etc.

(7) If the source of the release is a point source, if possible safely cap, plug, or shut-off.

(8) Obtain samples and laboratory assistance if a problem is not immediately identified and corrected;

(9) Air monitoring devices are available on-site in order to determine oxygen and LEL levels, and assess the level of hazard.

(10) Follow instructions from Emergency Coordinator.

(11) The Emergency Coordinator shall request response from coordinating emergency services if needed.

d. Fire

The fire department should always be summoned immediately to have trained professionals on hand or to respond if the fire has progressed beyond an incipient fire. If it is safe to do so, responding employees, under the direction of the Emergency Coordinator, may begin fire fighting measures. This is recommended only for very small, incipient fires, such as small paper fires. This includes:

- Application of portable or other fire extinguishing equipment;

- Removing or isolating materials which may contribute to perpetuating or to exacerbating the incident.

Should the fire escalate to a level beyond incipient, response procedures are to be terminated and the Fire Department summoned ~~given up to fire responders~~.

The Emergency Coordinator shall direct non-responding personnel to remove themselves to a place of safety, upwind of the incident. If evacuation is necessary, the evacuation procedures found on page 34 ~~will~~ shall be followed.

As soon as possible after the discovery of the fire or explosion, the Emergency Coordinator will order a controlled and orderly shut down of operations and processes. The Emergency Coordinator will also monitor processes or operations which were shutdown in response to the emergency for build-up of pressure, leaks, ruptures, etc. The Emergency Coordinator shall also take steps to contain or prevent the runoff of firefighting water, and chemicals, and the migration of chemical(s) involved in the incident by application of spill absorbent media or use of heavy equipment to construct temporary berms, and/or use of vacuum systems to intercept and remove any resulting migration of materials.

Upon resolution of the fire, the Emergency Coordinator shall initiate actions for the clean-up and decontamination of the site, and the equipment used to respond to the incident. The Emergency Coordinator will also provide for the characterization, treatment, storage or disposal of the wastes and any contaminated debris, water and soil generated by the fire. Operations will not be resumed until the facility and emergency equipment are returned to full capability of their intended use.

Additional Information:

Under no circumstances should employees attempt to fight fires without summoning the fire department first. Employees should

never jeopardize their lives or safety in attempts to control or fight fires.

e. Explosion

Possible explosion hazards which exist at the facility are located at the Aerosol Can Product Recovery Unit, the Drum Processing Unit, the Tank Farm, and the Hazardous Materials (Labpack) Storage Area (proposed area where compressed gases are located). Additional discussion regarding explosion scenarios are included in Appendix VIII. ~~Since there is no known explosive material at the plant, the only explosions that might occur would be unexpected and probably of unknown origin.~~

The specific response to an explosion would combine the appropriate responses previously described for fire and non-oil liquid spills.

f. Non-Sudden Release

In the event of a non-sudden release of hazardous waste, the exact character, source, amount, and extent of release will be the basis for decisions as to whether to institute relevant portions of this Plan or treat it (i.e., remediation) outside the context of this Plan.

g. Container Leaks and/or Spills

Three (3) container storage areas exist on site they include an outside container storage area, van trailer storage area and the container storage and processing building. All areas are inspected daily for leaks; should a leak occur one can expect it would be minimal. Should an incident occur proceed as follows:

(1) Determine source of leak or spill;

(2) Determine the type of material spilled (i.e., acid, caustic);

(3) Take immediate action as required to contain spill; place containment material around the spill and its source;

(4) Leaking containers will be emptied or overpacked immediately upon their discovery and will not be reused.

(5) Should the spill be of such volume or nature as to represent a potential health risk, DO NOT PROCEED, EVACUATE THE AREA AND;

(a) Notify the Supervisor and Emergency Coordinator and follow all specific instructions.

(b) Assist ~~directed (3)~~ members of the Spill Response Team which will be outfitted with appropriate personal protective equipment ~~suit and~~ to perform ~~commence~~ rescue and response/remediation efforts as necessary. ~~As directed (3) members of the Spill Response Team will suit appropriately and commence remediation efforts.~~

(6) Isolate and contain the spilled or leaking material;

(7) If needed, seal off drains, sewers and drainage ditches to prevent loss of material;

(8) Remove materials in the immediate vicinity of the affected area as necessary to minimize aggravation of the incident;

(9) Place or pump contents of the leaking container into new or overpack original container.

(10) If spill is a caustic or acidic material the Emergency Coordinator and laboratory personnel will determine if neutralizing chemicals are required.

(11) All spilled or leaked material will be cleaned-up and placed into a non-leaking container.

(12) Handle material resulting from clean-up according to directions from Plant Manager.

(13) For spills and releases to the environment, notification will be made to the Illinois EPA within 24 hours of its detection, unless the release is less than or equal to a quantity of one pound and immediately contained and removed.

h. Tank Systems Leaks and/or Spills

All tanks are contained within adequate secondary containment. Due to daily inspections of tank systems for tank integrity, if a leak occurred one can expect it would be minimal. Should an incident occur proceed as follows:

(1) Determine source of leak or spill;

(2) Determine the type of material involved (i.e., oily water mixture);

(3) Take immediate action as required to lessen the severity of the incident, such as closing a valve or shutting off a pump;

(4) Should the spill be of such volume or nature as to represent a potential health risk, DO NOT PROCEED, EVACUATE THE AREA AND;

(a) Notify the Supervisor and Emergency Coordinator and follow all specific instructions;

(b) As directed (3) members of the Spill Response Team will suit appropriately and commence remediation efforts;

(5) Isolate and contain the spilled or leaking material (i.e., containment boom or other material);

(6) If needed seal off drains, sewers and drainage ditches to prevent loss of material;

(7) Shut off, cap, plug, or patch the source of the spill. If needed transfer the material from the tank with the leak

to another tank with adequate capacity of like material. Should capacity not be available use a vacuum truck.

(8) Operators should follow standard operating procedure for pumping/transferring material.

(a) Before pumping of material begins:

i) Check personal safety equipment regulations for proper safety equipment to be worn.

ii) Check gauge on sending tank.

iii) Check gauge on receiving tank.

iv) Check that receiving tank will hold the amount of material which will be moved.

(9) Walk transfer line from pump to see that valves to receiving tank are open and all other valves are closed;

(10) Check that valves on bottom (outlet) of receiving tank are closed;

(11) Walk line from pump to see that valves on suction line from sending tank are open and all other valves are closed;

(12) Begin pumping material;

(13) Open outlet valve on sending tank;

(14) Check receiving tank to be sure that material is going into the tank by listening to the tank. Do not rely on change in gauge;

(15) Observe lines from sending tank to receiving tank;

(16) Repeat line check periodically during pumping period;

(17) After pumping has finished and transfer is complete;

(a) Close valve on outlet of sending tank.

(b) Drain hoses from sending tank to receiving tank.

(c) Shut off pump.

(18) Emergency Coordinator and Spill Response Team begin and complete clean-up.

(19) Handle material resulting from clean-up according to directions from Plant Manager.

(20) For spills and releases to the environment notification will be made to the Illinois EPA within 24 hours of its detection, unless the release is less than or equal to a quantity of one pound and immediately contained and removed.

6. Specific Areas of the HERITAGE facility

In this section the major hazards associated with each area of the facility are addressed.

a. Oil/Hydrocarbon Treatment Area

(1) Hydrogen Sulfide (H_2S)

(a) A strong smell of rotten eggs is present. Evacuate the immediate area.

(b) Close all exterior doors.

(c) Follow the procedure for Toxic or Choking Vapors or Gases in Part D, v) Specific Emergency Response Procedures.

(2) Oil Spill

(a) Following the procedure in this Plan which address an Oil Spill.

(3) Tank Leaks and/or Spills

(a) Follow procedures previously addressed in this plan for Tank System Leaks and/or Spills.

b. Cyanide Destruction System (proposed)

(1) Hydrogen Cyanide (HCN)

(a) An HCN monitor has been triggered and the yellow warning light is flashing. Evacuate all personnel in the immediate area.

(b) Close all exterior doors.

(c) Follow the procedure for Toxic or Choking Vapors or Gases.

c. Fixation Building (proposed)

(1) Hydrogen Sulfide (H_2S)

(a) The yellow warning light of a monitor has been triggered; evacuate the immediate area. A strong smell of rotten eggs is present.

(b) Close all exterior doors.

(c) Follow the procedures for Toxic Choking Vapors or Gases.

(2) Nitrogen Oxides (NO_x)

(a) A chemical release has occurred and a sweet irritating odor is present. Visual observation generally present also. Evacuate the immediate area.

(b) Close all exterior doors.

(c) Follow the procedure for Toxic Choking Vapors or Gases.

(3) Ammonia

(a) When a slight odor of ammonia (pungent, irritating) becomes present employees should use respirators. If condition increases evacuate the immediate area.

(b) Follow the procedure for Toxic Choking Vapors or Gases.

(4) Non-Oil Spill

(a) Follow the procedure in this plan which addresses Non-Oil Spills.

(5) Tank Leaks and/or Spills

(a) Follow procedures previously addressed in this plan for Tank System Leaks and/or Spills.

d. Container Storage Areas (Outside Drum Storage Area, Container Storage and Processing Building)

(1) Non-Oil Spill

(a) Follow the procedure in this plan which addresses Non-Oil Spills.

(2) Container Leaks and/or Spills

(a) Follow procedures previously addressed in this plan for Container Leaks and/or Spills.

7. Incident Scenarios

Several scenarios have been selected as conceivable incidents which would require evaluation by the Emergency Coordinator. These incident scenarios have been evaluated utilizing the Automated Resource for Chemical Hazard Evaluation (ARCHIE) Version 1.0.

A discussion of the rationale for selected scenarios and the results of modelling are presented in Appendix VIII.

8. Criteria for Facility Evacuation

The decision to evacuate the facility or locality falls to the Emergency Coordinator given the specifics of the incident. Non-essential personnel may be evacuated at the discretion of the Emergency Coordinator -- they will be instructed where to assemble by the Evacuation Officer.

9. Evacuation Procedures

Responsibilities:

a. The Emergency Coordinator is responsible for implementing the evacuation procedure. He may do so, or designate an Evacuation Officer.

b. Each Supervisor is responsible for directing employees and visitors in his/her section to the proper building exit and subsequently to the primary or secondary rendezvous points. ~~their assigned safe area.~~

c. The Evacuation Officer (if designated by the Emergency Coordinator) is responsible for selecting evacuation routes, and designating assembly at the primary or secondary rendezvous point and accounting for all evacuated employees and visitors.

Procedure:

a. The Emergency Coordinator will notify supervisors if an evacuation may be necessary.

b. The Emergency Coordinator will asses the conditions and order an evacuation or other actions required. The evacuation signal will be given by verbal notification and/or alarm signal (continuous short blasts).

c. When an evacuation is announced, stop work. Supervisors will direct employees in their areas to the closest available exit. All

exits within any buildings are clearly marked with lighted or distinguishable signs.

d. All employees must leave the facility and report to the designated assembly area. Do not run. Do not linger in entrance ways or driveways; stay together in your assigned safe area.

e. Each employee must report to the Evacuation Officer at the assigned safe area.

f. The Evacuation Officer will specify a safe route of evacuation and a rendezvous point for employees to meet for a final accounting and further instructions.

g. The Evacuation Officer must report to the Emergency Coordinator when his/her employees have cleared the facility.

h. The Emergency Coordinator will notify the Evacuation Officer when it is safe to re-enter the facility.

i. Stay outside the facility until notified by the Evacuation Officer when it is safe to re-enter.

Emergency Precautions:

a. Keep calm, think, avoid panic and confusion.

b. Know all exit locations. Be sure you know the safest and quickest way out of all buildings.

c. Do not lock office doors when vacating the facility. The Emergency Coordinator and emergency support personnel must have visual access to all areas to ensure that the facility is clear of personnel.

d. Do not delay evacuation of the facility for any reason.

e. Do not assist in fire control unless properly trained, qualified and requested to do so by the Emergency Coordinator.

f. Do not use paging system. The paging system must be left open for issuing instructions.

g. When evacuating the facility, WALK to the nearest safe exit. Report to the personnel assembly area as directed and wait for instructions.

h. Keep out of the way, stay clear of the facility, and DO NOT interfere with the emergency operations.

Evacuation Routes/Plans:

In the event of an emergency, HERITAGE employees may be instructed to evacuate the plant.

Notification of evacuation will be given either by voice instruction or by an alarm signal (continuous short blasts).

Voice Instruction:

Attention all personnel, please evacuate the building(s) through the North, South, East, or West exits closest to your location (see evacuation routes). Proceed to the primary or secondary evacuation point ~~(NW front gate, NE front gate, or SW or SE property line)~~. The statement identifying meeting points and directing personnel to specific exits will be dependent upon the possibility of vapor generation (if this is occurring during the incident) and the wind direction of any ensuing cloud. All employees will be accounted for by a ranking, predesignated employee.

The general primary and alternate evacuation routes and primary and secondary rendezvous points are indicted on the map included as Appendix IV. A person shall be appointed by the Emergency Coordinator to act as the Evacuation Officer. The Evacuation Officer will instruct you to leave the site and specify a route of evacuation. The Evacuation Officer will confirm everyone has been safely evacuated.

The Evacuation Officer shall then leave the site, and proceed to the rendezvous point, checking along the way for stragglers or employees with disabled vehicles. At the rendezvous point, the Evacuation officer will confirm that all employees have safely arrived. If any employees are missing, the Evacuation Officer should report their absence immediately to the Emergency

Coordinator and local authorities. The Evacuation officer will then instruct you if you should proceed home or await further instructions.

E. Identification of Emergency Coordinator(s)

The following persons are designated as Emergency Coordinators. In the event of an emergency, contact the person at the top of the list. If you cannot reach that person, move down the list to the next person; do not wait. Repeat that process until you reach one of the Emergency Coordinators.

Emergency Coordinator/Title	Telephone Numbers
PRIMARY	
Non-Responsive	(708) 739-1151 (Work) Non-Responsive (Home) (Beeper)
ALTERNATES	
Bob Garcia Plant Manager	(708) 739-1151 (Work) Non-Responsive (Home) (Beeper)
Non-Responsive	
Vince Zajec	(708) 739-1151 (Work)
Non-Responsive	Non-Responsive (Home) (Beeper)
Non-Responsive	(708) 739-1151 (Work) Non-Responsive (Home) (Beeper)

1. Responsibilities

Upon sounding of the alarm or notification by a supervisor, the on-site Emergency Coordinator or alternate will be notified of the emergency and become responsible for the implementation of the Contingency Plan.

In the event more than one designated Emergency Coordinator is on-site, the ranking employee shall be in charge. All employees assigned emergency response duties will report to the Emergency Coordinator for their assignments.

The Emergency Coordinator's responsibilities include:

a. Being familiar with:

(1) The facility Contingency Plan;

(2) The facility operations and activities;

(3) The characteristics and locations of hazardous substances used or stored on-site;

(4) The physical layout of the facility; and

(5) The location of equipment, materials and records in the facility.

b. Coordinating the emergency response measures as described in this Plan

c. Completing the duties of the Emergency Coordinator as described in this Plan.

The Emergency Coordinator is authorized to commit the necessary resources, i.e., expend funds, hire contractors, and direct employees as necessary to implement the Contingency Plan.

2. Duties

In the event of a fire, explosion or spill on the site, the Emergency Coordinator is the only HERITAGE employee authorized to implement any part of this contingency plan unless the Emergency Coordinator appoints an employee to perform a certain task on his behalf. (i.e., Evacuation Officer, communication/public relations, fire-fighting coordinator.)

Any employee assigned to perform a duty on behalf of the Emergency Coordinator must do so in a responsible manner and limit his actions to those specifically assigned to him by the Emergency Coordinator.

F. Emergency Equipment

See Appendix V for an inventory of equipment available on-site to respond to fires, spills or releases of materials. The list of equipment additionally includes the inventory available through the site's primary emergency contractor, HERITAGE Remediation/Engineering located within 5 miles of the plant (Romeoville, IL). Appendix VI provides the location of on-site equipment in order to document the identification and availability of emergency equipment for employees, private contractors and other sources.

Discussion of Maintenance and Inspection of Emergency Equipment

Portable fire extinguishers are inspected monthly by Tri-State for readiness, access and availability for emergencies. Respirators are inspected monthly as prescribed by 29 CFR 1910.134. Respirators are also used by HERITAGE on a daily basis and are inspected prior to each use, and immediately before and after cleaning and sanitizing.

Heavy equipment and vehicles available for emergency response are maintained and inspected on a schedule established by the maintenance department.

Pumps, compressors, blowers, etc. are inspected and maintained as use dictates.

V. POST-EMERGENCY RESPONSE ACTIVITIES

Spills or releases to the environment from storage tank systems (unless exempted under 724.296(2)), will be reported in writing to the Illinois EPA within thirty (30) days. The following information will be included in the report:

1. Likely route of migration of the release;

2. Characteristics of surrounding soil (soil composition, geology, hydrogeology, climate);

3. Results or any monitoring or sampling conducted in connection with the release (if available).

   If sampling or monitoring data relating to the release are not available within 30 days, this data will be submitted to the Agency as soon as they become available;

4. Proximity to down-gradient drinking water, surface water and populated areas; and

5. Description of response actions taken or planned.

Following an incident, tank systems shall be inspected for structural integrity and repaired in accordance with the provisions of 35 IAC Section 724.296 (e). Any extensive repairs performed (i.e., repair of a ruptured tank) will be inspected and certified by an independent, registered professional engineer prior to returning the tank to service. The certification will be submitted to the Illinois EPA within seven (7) days after returning the system(s) to use. If the tank system is damaged beyond repair, the system shall be closed in accordance with Section 724.297.

The Contingency Plan will be reviewed by the facility owner/operator and Emergency Coordinator following an incident implementing the Contingency Plan in order to assess its effectiveness in responding to the event. If the evaluation reveals that the plan failed in responding to the emergency, the plan shall be amended as necessary.

VI. EMPLOYEE EDUCATION AND TRAINING PROGRAM

HERITAGE realizes that implementation of the Contingency Plan would not be possible without proper education and training of its employees on how to respond to emergencies and exercise precautions to prevent sudden or non-sudden releases.

The initial and continuing training program includes:

- Hazard communication about hazardous materials used or stored on-site;
- Emergency notification procedures;
- Emergency response procedures;
- Evacuation procedures;

- Spill, fire and release preventative measures and controls.

VII. AMENDMENT OF CONTINGENCY PLAN

The Contingency Plan will be reviewed, and immediately amended, if necessary, whenever:

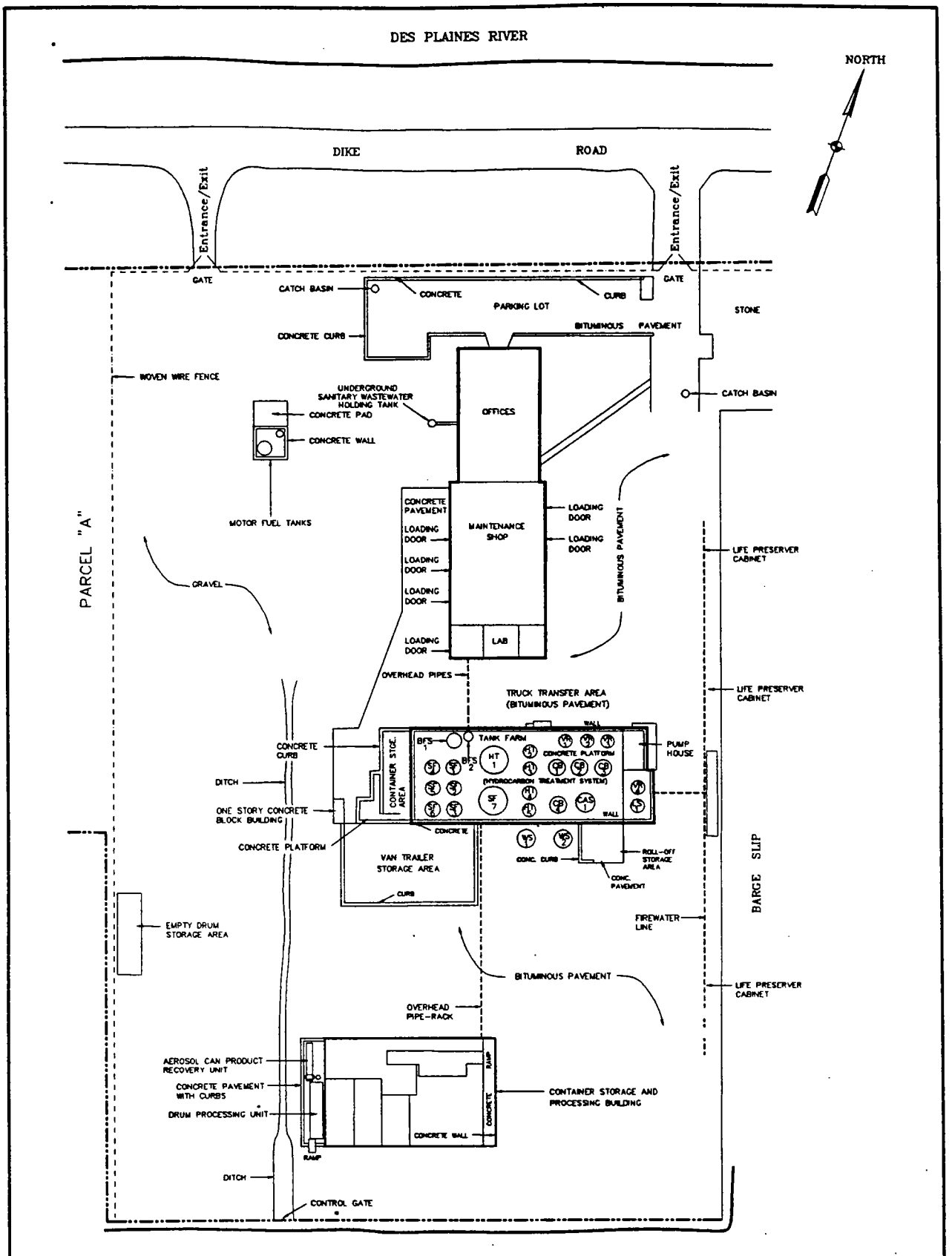
- The facility permit is revised;
- The plan fails in an emergency;
- The facility changes -- in its design, construction, operation, maintenance or other circumstances -- in a way that materially increases the potential for fires, explosions or releases of hazardous waste or constituents, or changes the response necessary in an emergency;
- The list of emergency coordinators changes; or
- The list of emergency equipment changes.

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX I

FACILITY SITE PLANS



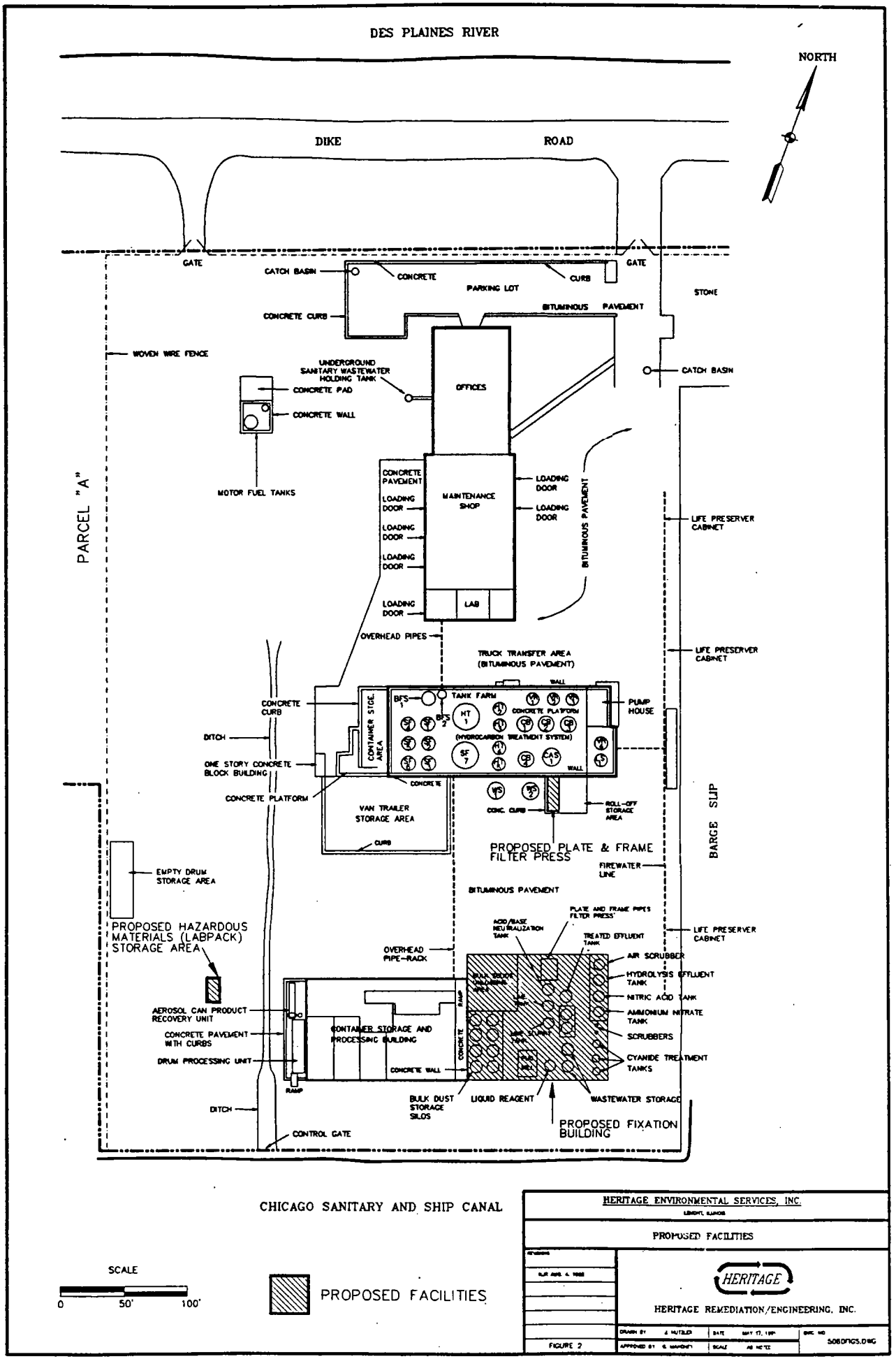
HERITAGE ENVIRONMENTAL SERVICES, INC.

EXISTING FACILITY

HERITAGE REMEDIATION/ENGINEERING, INC

FIGURE 1

5455fig1.dwg



HERITAGE ENVIRONMENTAL SERVICES, INC.

PROPOSED FACILITIES

HERITAGE

HERITAGE REMEDIATION/ENGINEERING, INC.

FIGURE 2

508DRGS.DWG

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX II

LIST OF MATERIALS PERMITTED FOR ACCEPTANCE

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY/CONTINGENCY PLAN - APPENDIX II
LIST OF MATERIALS PERMITTED FOR STORAGE AND/OR TREATMENT

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
CHARACTERISTICALLY HAZARDOUS MATERIALS (IGNITABLE, CORROSIVE, REACTIVE OR HEAVY METAL-BEARING):					
D001	SOLID & LIQUID IGNITABLE INDUSTRIAL WASTES	D1,D2,D3,T1	IGNITABILITY	1000	300
D002	SOLID & LIQUID CORROSIVE INDUSTRIAL WASTES (ACIDS & CAUSTICS)	D1,D2,D3,T1	CORROSIVITY	400	100
D003	SOLID & LIQUID REACTIVE INDUSTRIAL WASTES (CYANIDE/SULFIDE-BEARING, OXIDIZERS)	D1,D2,D3	REACTIVITY	10	1
D004	ARSENIC-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D005	BARIUM-CONTAINING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D006	CADMIUM-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D007	CHROMIUM-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D008	LEAD-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D009	MERCURY-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D010	SELENIUM-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D011	SILVER-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D018	BENZENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D019	CARBON TETRACHLORIDE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D020	CHLORDANE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D021	CHLOROBENZENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D022	CHLOROFORM-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D023	O-CRESOL-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D024	m-CRESOL-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
D025	p-CRESOL-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D026	CRESOL-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D027	1,4-DICHLOROBENZENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D028	1,2-DICHLOROETHANE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D029	1,1-DICHLOROETHYLENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D030	2,4-DINITROTOLUENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D031	HEPTACHLOR (and its hydroxide)-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D032	HEXACHLOROBENZENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D033	HEXACHLOROBUTADIENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D034	HEXACHLOROETHANE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D035	METHYL ETHYL KETONE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D036	NITROBENZENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D037	PENTACHLOROPHENOL-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D038	PYRIDINE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D039	TETRACHLOROETHYLENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D040	TRICHLOROETHYLENE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D041	2,4,5-TRICHLOROPHENOL-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D042	2,4,6-TRICHLOROPHENOL-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
D043	VINYL CHLORIDE-BEARING INDUSTRIAL WASTES	D1,D2,D3,T1	TOXICITY	400	5
HAZARDOUS WASTE FROM NON-SPECIFIC SOURCES: (Hazardous Constituents Included w/Materials Description)					

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
F001	SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS	D1,D2,D3,T1	TOXIC	1000	300
F002	SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,1,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE AND 1,1,2-TRICHLOROETHANE	D1,D2,D3,T1	TOXIC	1000	300
F003	SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYLCOHEXANONE, AND METHANOL	D1,D2,D3,T1	TOXIC, IGNITABLE	1000	300
F004	SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND NITROBENZENE	D1,D2,D3,T1	TOXIC	1000	300
F005	SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL AND 2-NITROPROPANE	D1,D2,D3,T1	TOXIC	1000	300
F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS (Camium, Hexavalent Chromium, Nickel, Complexed Cyanides)	D1,D2,D3,T1	TOXIC	100	20
F007	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS (Cyanide Salts)	D1,D2,D3,T1	REACTIVE, TOXIC	100	20
F008	PLATING BATH RESIDUES FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED (Cyanide Salts)	D1,D2,D3,T1	REACTIVE, TOXIC	100	20
F009	SPENT STRIPPING AND CLEANING BATH CYANIDE SOLUTIONS FROM ELECTROPLATING OPERATIONS (Cyanide Salts)	D1,D2,D3,T1	REACTIVE, TOXIC	100	20
F010	QUENCHING BATH CYANIDE RESIDUES FROM OIL BATHS FROM METAL HEAT TREATING OPERATIONS (Cyanide Salts)	D1,D2,D3,T1	REACTIVE, TOXIC	100	20
F011	SPENT CYANIDE SOLUTIONS FROM SALT BATH POT CLEANING FROM METAL HEAT TREATING OPERATIONS (Cyanide Salts)	D1,D2,D3,T1	REACTIVE, TOXIC	100	20
F012	QUENCHING WASTEWATER TREATMENT CYANIDE SLUDGES FROM METAL HEAT TREATING OPERATIONS (Cyanide Complexes)	D1,D2,D3,T1	TOXIC	100	20

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
F019	WASTEWATER TREATMENT SLUDGES FROM THE CHEMICAL CONVERSION COATING OF ALUMINUM (Hexavalent Chromium, Complexed Cyanides)	D1,D2,D3,T1	TOXIC	100	20
HAZARDOUS WASTES FROM SPECIFIC SOURCES: **(Hazardous Constituents included w/Materials Description)**					
K002	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHROME YELLOW AND ORANGE PIGMENTS (Hexavalent Chromium, Lead)	D1,D2,D3,T1	TOXIC	100	5
K003	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF MOLYBDATE ORANGE PIGMENTS (Hex. Chromium, Lead)	D1,D2,D3,T1	TOXIC	100	5
K004	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF ZINC YELLOW PIGMENTS (Hex. Chromium)	D1,D2,D3,T1	TOXIC	100	5
K005	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHROME OXIDE GREEN PIGMENTS (Hex. Chromium, Lead)	D1,D2,D3,T1	TOXIC	100	5
K006	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHROME OXIDE GREEN PIGMENTS, ANHYDROUS AND HYDRATED (Hex. Chromium)	D1,D2,D3,T1	TOXIC	100	5
K007	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF IRON BLUE PIGMENTS (Complexed Cyanides, Hex. Chromium)	D1,D2,D3,T1	TOXIC	100	5
K008	OVEN RESIDUE FROM THE PRODUCTION OF CHROME OXIDE GREEN PIGMENTS (Hex. Chromium)	D1,D2,D3,T1	TOXIC	100	5
K022	DISTILLATION BOTTOM TARS FROM THE PRODUCTION OF PHENOL/ACETONE FROM CUMENE (Phenol, Tars/Polycyclic Aromatic Hydrocarbons)	D1,D2,D3,T1	TOXIC	100	5
K023	DISTILLATION LIGHT ENDS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM NAPHTHALENE (Phthalic Anydride, Maleic Anydride)	D1,D2,D3,T1	TOXIC	100	5
K024	DISTILLATION BOTTOMS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE (Phthalic Anhydride, 1,4-Napthoquinone)	D1,D2,D3,T1	TOXIC	100	5
K025	DISTILLATION BOTTOMS FROM THE PRODUCTION OF NITROBENZENE BY THE NITRATION OF BENZENE (m-Dinitrobenzene, 2,4-Dinitrotoluene)	D1,D2,D3,T1	TOXIC	100	5
K029	WASTE FROM THE PRODUCT STEAM STRIPPER IN THE PRODUCTION OF 1,1,1-TRICHLOROETHANE (1,2-Dichloroethane, 1,1,1-Trichloroethane, Vinyl Chloride, Vinylidene Chloride, Chloroform)	D1,D2,D3,T1	TOXIC	100	5

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
K032	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHLORDANE (Hexachloropentadiene)	D1,D2,D3,T1	TOXIC	100	5
K035	WASTEWATER TREATMENT SLUDGES GENERATED IN THE PRODUCTION OF CREOSOTE (Creosote, Chrysene, Naphthalene, Fluoranthene, Benzo(a)pyrene, Indeno (1,2,3-cd) pyrene, Benzo(a)anthracene, Dibenzo(a)anthracene, Acenapthalene)	D1,D2,D3,T1	TOXIC	100	5
K041	WASTEWATER TREATMENT SLUDGES FROM THE PRODUCTION OF TOXAPHENE (Toxaphene)	D1,D2,D3,T1	TOXIC	100	5
K046	WASTEWATER TREATMENT SLUDGES FROM THE MANUFACTURING , FORMULATION AND LOADING OF LEAD-BASED INITIATING COMPOUNDS (Lead)	D1,D2,D3,T1	TOXIC	100	5
K048	DISSOLVED AIR FLOATATION FLOAT FROM THE PETROLEUM REFINING INDUSTRY (Hexavalent Chromium, Lead)	D1,D2,D3,T1	TOXIC	100	20
K049	SLOP OIL EMULSION SOLIDS FROM THE PETROLEUM REFINING INDUSTRY (Hexavalent Chromium, Lead)	D1,D2,D3,T1	TOXIC	100	20
K050	HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY (Hex. Chromium)	D1,D2,D3,T1	TOXIC	100	20
K051	API SEPARATOR SLUDGE FROM THE PETROLEUM REFINING INDUSTRY (Hex. Chromium, Lead)	D1,D2,D3,T1	TOXIC	100	20
K052	LEADED TANK BOTTOMS FROM THE PETROLEUM REFINING INDUSTRY	D1,D2,D3,T1	TOXIC	100	20
K060	AMMONIA STILL LIME SLUDGE FROM COKING OPERATIONS (Cyanide, Napthalene, Phenolic Compounds, Arsenic)	D1,D2,D3,T1	TOXIC	100	1
K061	EMISSION CONTROL DUST/SLUDGE FROM THE PRIMARY PRODUCTION OF STEEL IN ELECTRIC ARC FURNACES (Hex. Chromium, Lead, Cadmium)	D1,D2,D3,T1	TOXIC	1000	100
K062	SPENT PICKLE LIQUOR GENERATED BY STEEL FINISHING OPERATIONS WITHIN THE IRON AND STEEL INDUSTRY (Hex. Chromium, Lead)	D1,D2,D3,T1	TOXIC, CORROSIVE	1000	100
K069	EMISSION CONTROL DUST/SLUDGE FROM SECONDARY LEAD SMELTING (Hex. Chromium, Lead, Cadmium)	D1,D2,D3,T1	TOXIC	100	1
K071	BRINE PURIFICATION MUDS FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION (Mercury)	D1,D2,D3,T1	TOXIC	100	1

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
K083	DISTILLATION BOTTOMS FROM ANILINE PRODUCTION (Aniline, diphenylamine, Nitrobenzene, Phenylenediamine)	D1,D2,D3,T1	TOXIC	100	1
K084	WASTEWATER TRMT. SLUDGES GENERATED DURING THE PRODUCTION OF VETERINARY PHARMACEUTICAL FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS	D1,D2,D3,T1	TOXIC	100	1
K086	SOLVENT, CAUSTIC OR WATER WASHES AND SLUDGES FROM CLEANING EQUIPMENT USED IN THE FORMULATION OF INK FROM PIGMENTS , DRIERS, SOAPS & STABILIZERS CONTAINING CHROMIUM & LEAD (Lead, Hex. Chromium)	D1,D2,D3,T1	TOXIC	100	1
K087	DECANTER TANK TAR SLUDGE FROM COKING OPERATIONS (Phenol, Naphthalene)	D1,D2,D3,T1	TOXIC	100	1
K093	DISTILLATION LIGHT ENDS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE (Phthalic Anhydride, Maleic Anhydride)	D1,D2,D3,T1	TOXIC	100	1
K094	DISTILLATION BOTTOMS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE (Phthalic Anhydride)	D1,D2,D3,T1	TOXIC	100	1
K095	DISTILLATION BOTTOMS FROM THE PRODUCTION OF 1,1,1-TRICHLOROETHANE (1,1,2-Trichloroethane, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane)	D1,D2,D3,T1	TOXIC	100	1
K096	HEAVY ENDS FROM THE HEAVY ENDS COLUMN FROM THE PRODUCTION OF 1,1,1-TRICHLOROETHANE (1,2-Dichloroethane, 1,1,1-Trichloroethane, 1,1,2- Trichloroethane)	D1,D2,D3,T1	TOXIC	100	1
K099	UNTREATED WASTEWATER FROM THE PRODUCTION OF 2,4-D (2,4-Dichlorophenol, 2,4,6-Trichlorophenol)	D1,D2,D3,T1	TOXIC	100	1
K100	WASTE LEACHING SOLUTION FROM ACID LEACHING OF EMISSION CONTROL DUST/SLUDGE FROM SECONDARY LEAD SMELTING (Hex. Chromium, Lead, Cadmium)	D1,D2,D3,T1	TOXIC	100	1
K104	COMBINED WASTEWATER STREAMS GENERATED FROM NITROBENZENE/ANILINE PRODUCTION (Aniline, Benzene, Diphenylamine, Nitrobenzene, Phenylenediamine)	D1,D2,D3,T1	TOXIC	100	1
K106	WASTEWATER TREATMENT SLUDGES FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION (Mercury)	D1,D2,D3,T1	TOXIC	100	1
COMMERCIAL CHEMICAL PRODUCTS & CHEMICAL MFG. INTERMEDIATES (INCL. OFF-SPEC. MATERIALS): (DOT HAZARD CLASS INCLUDED IN MATERIALS DESCRIPTION*)					
P003	ACROLEIN (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
P004	ALDRIN (ORM-A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P005	ALLYL ALCOHOL (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P008	4-AMINOPYRIDINE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P009	AMMONIUM PICRATE (FLAMMABLE SOLID)	D1,D2,D3	REACTIVE	1	100 LBS.
P010	ARSENIC ACID (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P011	ARSENIC (V) OXIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P012	ARSENIC (VII) OXIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P013	BARIUM CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P014	THIOPHENOL (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P015	BERYLLIUM DUST (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P021	CALCIUM CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P022	CARBON DISULFIDE (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P023	CHLOROACETALDEHYDE (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P024	P-CHLOROANILINE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P028	BENZYL CHLORIDE (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P029	COPPER CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P030	SOLUBLE CYANIDE SALTS, N.O.S. (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P031	CYANOGEN (POISON A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P033	CYANOGEN CHLORIDE (POISON A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P037	DIELDRIN (ORM-A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P039	DISULFOTON (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P040	0,0-DIETHYL-0-PRYAZINLY-PHOSPHOROTHIOATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
P041	DIETHYL-P-NITROPHENYL PHOSPHATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P042	EPINEPHRIN (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P043	DIISPROPYLFLUOROPHOSPHATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P048	2,4-DINITROPHENOL (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P050	ENDOSULFAN (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P051	ENDRIN (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P058	FLUOROACETIC ACID, SODIUM SALT (CORROSIVE MATERIAL)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P062	TETRAPHOSPHORIC ACID, HEXAETHYL ESTER (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P063	HYDROCYANIC ACID < 5% (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P064	METHYL ISOCYANATE (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P067	2-METHYLAZIRIDINE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P068	METHYL HYDRAZINE (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P069	METHYACRYLONITRILE (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P070	ALDICARB (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P071	METHYL PARATHION (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P072	ALPHA-NAPHTHYLTHIOUREA (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P074	NICKEL CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P075	NICOTINE & SALTS (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P076	NITRIC OXIDE (POISON A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P077	P-NITROANILINE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P078	NITROGEN OXIDES (POISON A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P081	SPIRITS OF NITROGLYCERINE < 10% (FLAMMABLE LIQUID)	D1,D2,D3	REACTIVE	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
P082	N-NITROSODIMETHYLAMINE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P087	OSMIUM TETRAOXIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P089	PARATHION (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P092	PHENYLMERCURIC ACETATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P093	N-PHENYLTHIOUREA (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P094	PHORATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P095	PHOSGENE (POISON A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P097	FAMPHUR (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P098	POTASSIUM CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P099	POTASSIUM SILVER CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P101	PROPANENITRILE (FLAMMABLE LIQUID)	D1,D2,D32	ACUTE TOXICITY	1	100 LBS.
P102	PROPARGYL ALCOHOL (FLAMMABLE LIQUID)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P104	SILVER CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P105	SODIUM AZIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P106	SODIUM CYANIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P107	STRONTIUM SULFIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P108	STRYCHNINE & SALTS (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P110	TETRAETHYL LEAD (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P111	TETRAETHYL PYROPHOSPHATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P112	TETRANITROMETHANE (OXIDIZER)	D1,D2,D3	REACTIVE	1	100 LBS.
P113	THALLIC OXIDE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P114	THALLIUM SELENITE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
P115	THALLIUM SULFATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P118	TRICHLOROMETHANETHIOL (ORM-A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P119	AMMONIUM VANADATE (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P120	VANADIUM OXIDE (ORM-E)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P121	ZINC CYANIDE (POISON B	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P122	ZINC PHOSPHIDE >10% (POISON B)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
P123	TOXAPHENE (ORM-A)	D1,D2,D3	ACUTE TOXICITY	1	100 LBS.
U001	ACETALDEHYDE (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE	1	100 LBS.
U002	ACETONE (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE	100	1
U003	ACETONITRILE (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE, TOXIC	10	1
U004	ACETOPHENONE (ORM-E)	D1,D2,D3	TOXIC	10	1
U005	0-ACETYLAMINOFLUORENE (POISON B)	D1,D2,D3	TOXIC	10	1
U006	ACETYL CHLORIDE (FLAMMABLE LIQUID OR GAS)	D1,D2,D3	CORROSIVE, REACTIVE, TOXIC	10	1
U007	ACRYLAMIDE (ORM-E)	D1,D2,D3	TOXIC	10	1
U008	ACRYLIC ACID (CORROSIVE MATERIAL)	D1,D2,D3	IGNITABLE	10	1
U009	ACRYLONITRILE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	10	1
U010	PORFIROMYCIN (ORM-E)	D1,D2,D3	TOXIC	10	1
U011	AMITROLE (POISON B)	D1,D2,D3	TOXIC	10	1
U012	ANILINE (POISON B)	D1,D2,D3	TOXIC	10	1
U014	AURAMINE (POISON B)	D1,D2,D3	TOXIC	10	1
U015	AZASERINE (POISON B)	D1,D2,D3	TOXIC	10	1

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
U017	BENZAL CHLORIDE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U018	BENZ[A]ANTHRACENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U019	BENZENE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE, TOXIC	1	100 LBS.
U020	BENZENESULFONYL CHLORIDE (FLAMMABLE LIQUID)	D1,D2,D3	CORROSIVE, TOXIC	1	100 LBS.
U021	BENZIDINE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U022	BENZOPYRENE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U023	BENZOTRICHLORIDE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U024	BIS(2-CHLOROETHOXY) METHANE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U025	DICHLOROETHYL ETHER (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U027	BIS(2-CHLOROISOPROPYL) ETHER (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U028	BIS-(2-ETHYLHEXYL) PHTHALATE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U030	BENZENE, 1-BROMO-4-PHENOXY (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U031	N-BUTYL ALCOHOL (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	100	1
U032	CALCIUM CHROMATE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U034	CHLORAL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U035	CHLORAMBUCIL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U036	CHLORDANE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U037	CHLOROBENZENE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U038	ETHYL-4-4-DICHLOROBENZILATE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U039	4-CHLORO-M-CRESOL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U041	EPICHLOROHYDRIN (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
U043	VINYL CHLORIDE (FLAMMABLE GAS)	D1,D2,D3	TOXIC	1	100 LBS.
U044	CHLOROFORM (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U046	CHLOROMETHYL METHYL ETHER (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U047	2-CHLORONAPHTHALENE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U048	2-CHLOROPHENOL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U049	2-CHLORO-0-TOLUIDINE HYDROCHLORIDE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U050	CHRYSENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U051	CREOSOTE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U052	CREOSOLS (CORROSIVE MATERIAL)	D1,D2,D3	TOXIC	1	100 LBS.
U053	CROTONALDEHYDE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U055	CUMENE (FLAMMABLE LIQUID, POISON B)	D1,D2,D3	IGNITABLE	1	100 LBS.
U056	CYCLOHEXANE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U057	CYCLOHEXANONE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U060	DDD (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U061	DDT (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U063	DIBENZ[A,H]ANTHRACENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U064	DIBENZOPYRENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U067	ETHYLENE DIBROMIDE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U069	DIBUTYL PHTHALATE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U070	0-DICHLOROBENZENE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U071	M-DICHLOROBENZENE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U072	1,4-DICHLOROBENZENE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
U076	1,1-DICHLOROETHANE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U077	ETHYLENE DICHLORIDE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U078	1,1-DICHLOROETHYLENE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U079	1,2-TRANS-DICHLOROETHYLENE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U080	METHYLENE CHLORIDE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U081	2,4-DICHLOROPHENOL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U082	2,6-DICHLOROPHENOL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U083	1,2-DICHLOROPROPANE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U084	1,3-DICHLOROPROPENE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U085	1,2:3,4-DIEPOXYBUTANE (CORROSIVE MATERIAL/FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE, TOXIC	1	100 LBS.
U086	N,N-DIETHYLHYDRAZINE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U087	0,0-DIETHYL-S-METHYL-DITHIOPHOSPHATE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U088	DIETHYL PHTHALATE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U089	DIETHYLSTIBESTROL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U090	DIHYDROSAFROLE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U092	DIMETHYLAMINE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U093	DIMETHYLAMINOAZOBENZENE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U094	7,12-DIMETHYLBENZ[A]ANTHRACENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U096	DIMETHYLBENZYL HYDROPEROXIDE (ORGANIC PEROXIDE)	D1,D2,D3	REACTIVE	1	100 LBS.
U101	2,4-DIMETHYLPHENOL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U102	DIMETHYLPHTHALATE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U103	DIMETHYL SULFATE (CORROSIVE MATERIAL)	D1,D2,D3	TOXIC	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
U105	2,4-DINITROTOLUENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U106	2,6-DINITROTOLUENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U107	DI-N-OCTYL PHTHALATE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U108	1,4-DIOXANE (FLAMMABLE LIQUIDS)	D1,D2,D3	TOXIC	1	100 LBS.
U112	ETHYL ACETATE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U113	ETHYL ACRYLATE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U117	ETHYL ETHER (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U118	ETHYLMETHACRYLATE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U120	FLUORANTHENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U121	TRICHLORO-MONOFLUORO-METHANE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U122	FORMALDEHYDE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U123	FORMIC ACID (CORROSIVE MATERIAL)	D1,D2,D3	CORROSIVE, TOXIC	1	100 LBS.
U124	FURAN (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U125	FURFURAL (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U127	HEXACHLOROBENZENE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U128	HEXACHLOROBUTADIENE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U129	LINDANE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U130	HEXACHLOROCYCLOPENTADIENE (CORROSIVE MATERIAL)	D1,D2,D3	TOXIC	1	100 LBS.
U131	HEXACHLOROETHANE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U133	HYDRAZINE (CORROSIVE MATERIAL)	D1,D2,D3	REACTIVE, TOXIC	1	100 LBS.
U134	HYDROFLUORIC ACID (CORROSIVE MATERIAL)	D1,D2,D3	CORROSIVE, TOXIC	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
U135	HYDROGEN SULFIDE (FLAMMABLE GAS)	D1,D2,D3	TOXIC	1	100 LBS.
U136	CACODYLIC ACID (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U138	METHYL IODIDE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U140	ISOBUTYL ALCOHOL (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE, TOXIC	100	1
U151	MERCURY, METALLIC (ORM-B)	D1,D2,D3	TOXIC	100	1
U154	METHANOL (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE	100	20
U157	3-METHYCHOLANTHRENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U158	4,4'-METHYLENE-BIS(-2-CHLOROANILINE) (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U159	METHYL ETHYL KETONE (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE, TOXIC	100	20
U160	METHYL ETHYL KETONE PEROXIDE (ORGANIC PEROXIDE)	D1,D2,D3	REACTIVE, TOXIC	1	100 LBS.
U161	METHYL ISOBUTYL KETONE (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE	100	1
U162	METHYL METHACRYLATE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE, TOXIC	1	100 LBS.
U165	NAPHTHALENE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U168	2-NAPHTHYLAMINE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U169	NITROBENZENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U170	NITROPHENOLS (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U171	2-NITROPROPANE (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE, TOXIC	1	100 LBS.
U181	5-NITRO-O-TOLUIDINE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U182	PARALDEHYDE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
U183	PENTACHLOROBENZENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U185	PENTACHLORONITROBENZENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U187	PHENACETIN (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U188	PHENOL (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U190	PHTHALIC ANHYDRIDE (CORROSIVE MATERIAL)	D1,D2,D3	TOXIC	1	100 LBS.
U196	PYRIDINE (FLAMMABLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U197	P-BENZOQUINONE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U200	RESERPINE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U201	RESORCINOL (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U202	SACCHARIN AND SALTS (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U203	SAFROLE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U204	SELENIOUS ACID (CORROSIVE MATERIAL)	D1,D2,D3	TOXIC	1	100 LBS.
U205	SELENIUM DISULFIDE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U207	1,2,4,5-TETRACHLOROBENZENE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U208	1,1,1,2-TETRACHLOROETHANE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U209	1,1,2,2-TETRACHLOROETHANE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U210	TETRACHLOROETHYLENE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U211	CARBON TETRACHLORIDE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U213	TETRAHYDROFURAN (FLAMMABLE LIQUID)	D1,D2,D3	IGNITABLE	1	100 LBS.
U214	THALLIUM ACETATE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U215	THALLIUM CARBONATE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U216	THALLIUM CHLORIDE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.
U217	THALLIUM NITRATE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U219	THIOUREA (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U220	TOLUENE (FLAMMABLE LIQUID)	D1,D2,D3,T1	TOXIC	100	20
U221	TOLUENEDIAMINE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U222	O-TOLUIDINE HYDROCHLORIDE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U223	TOLUENEDIISOCYANATE (POISON B)	D1,D2,D3	REACTIVE, TOXIC	1	100 LBS.
U225	BROMOFORM (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U226	METHYLCHLOROFORM (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U227	1,1,2-TRICHLOROETHANE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U228	TRICHLOROETHYLENE (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U234	SYM-TRINITROBENZENE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U236	TRYPAN BLUE (ORM-E)	D1,D2,D3	TOXIC	1	100 LBS.
U238	ETHYL CARBAMATE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U239	XYLENE (FLAMMABLE LIQUID)	D1,D2,D3,T1	IGNITABLE	100	20
U240	2,4-D (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U246	CYANOGEN BROMIDE (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U247	METHOXYCHLOR (ORM-A)	D1,D2,D3	TOXIC	1	100 LBS.
U249	ZINC PHOSPHIDE < 10% (POISON B)	D1,D2,D3	TOXIC	1	100 LBS.
U328	O-TOLUIDINE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U353	P-TOLUIDINE (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	1	100 LBS.
U359	ETHYLENE GLYCOL MONOETHYL ETHER (COMBUSTIBLE LIQUID)	D1,D2,D3	TOXIC	10	1

EPA & INDUSTRY HAZARDOUS #	HAZARDOUS MATERIALS GENERIC NAME/DESCRIPTION	LOCATION[1]	BASIS FOR HAZARD	ESTIMATED VOLUME (Tons)	
				MAX.	AVG.

DEFINITIONS OF HAZARDOUS CHARACTERISTICS AND HAZARD CLASSES:

RCRA (HAZARDOUS WASTE, 40CFR) DEFINITIONS:

IGNITABLE:	LIQUID MATERIALS W/FLASHPOINT < 140 DEGREES F; SOLIDS CAPABLE OF IGNITING AND VIGOUROUSLY BURNING THROUGH FRICTION, ABSORPTION OF MOISTURE OR SPONTANEOUS CHEMICAL CHANGE; AND OXIDIZERS UNDER DOT DEFINITIONS
CORROSIVE:	AQUEOUS SOLUTIONS OF MATERIALS W/ pH LESS THAN 2.0 OR GREATER THAN 12.5; OR LIQUIDS THAT CORRODES STEEL AT A RATE GREATER THAN 0.250 IN./YR.
REACTIVE:	MATERIALS THAT ARE UNSTABLE, REACTS VIOLENTLY W/WATER, FORMS POTENTIALLY EXPLOSIVE MIXTURES W/WATER, FORMS TOXIC GASES, VAPORS OR FUMES WHEN MIXED W/WATER; CYANIDE OR SULFIDE BEARING CAPABLE OF FORMING TOXIC GASES, VAPORS OR FUMES WHEN SUBJECT TO pH CONDITIONS BETWEEN 2 AND 12
EP TOXIC:	MATERIALS CAPABLE OF LEACHING HEAVY METALS AT CONCENTRATIONS GREATER THAN THOSE PRESCRIBED BY THE EPA WHEN SUBJECTED TO EXTRACTION PROCEDURE TESTING

DOT HAZARD CLASSES (49 CFR):

FLAMMABLE LIQUIDS:	MATERIALS W/FLASHPOINT < 100 DEGREES F
COMBUSTIBLE LIQUIDS:	MATERIALS W/ 100 DEGREES F < FLASHPOINT < 200 DEGREES F
FLAMMABLE SOLIDS:	MATERIALS POSING A FIRE HAZARD DUE TO FRICTION, HEAT EXPOSURE, OR BURNS VIGOROUSLY WHEN IGNITED, INCLUDES SPONTANEOUS COMBUSTIBLE OR WATER REACTIVE MATERIALS
OXIDIZERS:	CHLORATES, PERMANGANATES, INORGANIC PEROXIDES, OR NITRATES THAT YIELD OXYGEN READILY TO STIMULATE THE COMBUSTION OF ORGANIC MATTER
ORGANIC PEROXIDES:	
CORROSIVE MATERIALS:	LIQUID OR SOLID THAT CAUSES VISIBLE DESTRUCTION OR IRREVERSIBLE ALTERATIONS IN HUMAN SKIN TISSUE AT THE SITE OF CONTACT; OR HAS A SEVERE CORROSION RATE ON STEEL
POISON A:	POISONOUS GASES OR LIQUIDS IN VERY SMALL AMOUNTS THAT WHEN MIXED WITH AIR ARE DANGEROUS TO LIFE
POISON B:	LIQUID & SOLID SUBSTANCES KNOWN TO BE TOXIC VIA INHALATION, DIGESTION OR SKIN ABSORPTION
ORM-A:	MATERIALS W/ANESTHETIC, IRRITATING, NOXIOUS, TOXIC OR OTHER PROPERTIES CAUSING ANNOYANCE OR DISCOMFORT
ORM-B:	MATERIALS CAPABLE OF CAUSING SIGNIFICANT DAMAGE OR LEAKAGE DURING TRANSPORTATION (OR STORAGE)
ORM-E:	HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES NOT INCLUDED IN ANY OTHER HAZARD CLASS

[1] Storage Areas: D1=Drum Storage Building;
D2=Outdoor Drum Storage;
D3=Drum Storage - Trailer;
T1=Tank Farm

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
HYDROGEN SELENIDE	2 ppm	as SELENIUM	~	~
BERYLLIUM NITRATE	10 mg/m^3	as BERYLLIUM Suspected human carcinogen	Not ap	Not ap
MERCURY, DIMETHYL	10 mg/m^3	0.03 mg/m^3 as MERCURY - SKIN	~	~
CHLORINE TRIFLUORIDE	20 ppm	CEILING VALUE	Not ap	Not ap
THALLIUM CHLORATE	20 mg/m^3	as THALLIUM - SKIN	Not ap	Not ap
CHLORIC ACID, THALLIUM(1+)SALT	20 mg/m^3	as THALLIUM - SKIN	Not ap	Not ap
CHROMIC ANHYDRIDE	30 mg/m^3 as CHROMIUM	Confirmed human Carcinogen (A1)	Not ap	Not ap
CHROMIUM TRIOXIDE, ANHYD.	30 mg/m^3 as CHROMIUM	Confirmed human Carcinogen (A1)	Not ap	Not ap
DIBORANE	40 ppm	Not listed	0.8 %	88 %
ANTIMONY HYDRIDE	40 ppm	Not listed	~	~
TETRAMETHYL LEAD	40 mg/m^3	Not listed	~	~
DECABORANE(14)	100 mg/m^3	0.15 ppm SKIN	~	~
CAMPHOR	200 mg/m^3	3 ppm(18 mg/m^3)	0.6 %	3.5 %
ALLYL GLYCIDYL ETHER	270 ppm	10 ppm(40 mg/m^3) SKIN	~	~
ALLYL CHLORIDE	300 ppm	2 ppm(6 mg/m^3)	2.9 %	11.1 %
PERCHLOROYLFLUORIDE	385 ppm	6 ppm(28 mg/m^3)	~	~
CHLOROPRENE	400 ppm	SKIN	4 %	20 %
ZIRCONIUM NITRATE	500 mg/m^3	10 mg/m^3 as ZIRCONIUM	Not ap	Not ap

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
DIETHYLAMINO ETHANOL	500 ppm	SKIN	6.7 %	11.7 %
ZIRCONIUM HYDRIDE	500 mg/m^3	10 mg/m^3 as ZIRCONIUM	~	~
ZIRCONIUM METAL, LIQUID SUSP.	500 mg/m^3	10 mg/m^3 as ZIRCONIUM	Not ap	Not ap
PICRAMIC ACID, Zirconium salt	500 mg/m^3	10 mg/m^3 as ZIRCONIUM	~	~
TRIETHYLAMINE	1000 ppm	15 ppm	1.2 %	8 %
DIISOPROPYL AMINE	1000 ppm	SKIN	0.8 %	7.1 %
NITROETHANE	1000 ppm	Not listed	4.0%	?
NITROMETHANE	1000 ppm	150 ppm(375 mg/m^3)	~	~
p-tert-BUTYLTOLUENE	1000 ppm	20 ppm(120 mg/m^3)	?	?
ISOPROPYL GLYCIDYL ETHER	1000 ppm	75 ppm(360 mg/m^3)	~	~
METHYL ACRYLATE	1000 ppm	SKIN	2.8 %	25 %
ETHYL SILICATE	1000 ppm	Not listed	1.3 %	23 %
BARIUM BROMATE	1100 mg/m^3 as BARIUM		Not ap	Not ap
BARIUM CHLORATE	1100 mg/m^3 as BARIUM		Not ap	Not ap
BARIUM HYPOCHLORITE	1100 mg/m^3 as BARIUM		Not ap	Not ap
BARIUM NITRATE	1100 mg/m^3 as BARIUM		Not ap	Not ap
BARIUM PERCHLORATETRIHYDRATE	1100 mg/m^3 as BARIUM		Not ap	Not ap
BARIUM PERMANGANATE	1100 mg/m^3 as MANGANESE		Not ap	Not ap
BARIUM PEROXIDE	1100 mg/m^3	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
PERCHLORIC ACID, BARIUM SALT	1100 mg/m^3 as BARIUM		Not ap	Not ap
CARBON MONOXIDE	1500 ppm	Not listed	12.5 %	74 %
TURPENTINE	1500 ppm	Not listed	0.8 %	~
DIETHYLAMINE	2000 ppm	25 ppm(75 mg/m^3)	1.8 %	10.1 %
ETHYLENEDIAMINE	2000 ppm	Not listed	4.2 %	14.4 %
PROPYLENE OXIDE	2000 ppm	Not listed	2.8 %	37 %
BUTYLAMINE	2000 ppm SKIN - Ceiling value		1.7 %	9.8 %
CYCLOPENTADIENE	2000 ppm	Not listed	~	~
DIISOBUTYL KETONE	2000 ppm	Not listed	0.8 %	6.2 %
METHYL CELLOSOLVE	2000 ppm	Not listed	2.5 %	19.8 %
NITROGEN TRIFLUORIDE	2000 ppm	Not listed	~	~
N-ETHYLMORPHOLINE	2000 ppm	Not listed	1.O	9.8 %
METHYL ISOBUTYL CARBINOL	2000 ppm	40 ppm(165 mg/m^3) SKIN	1 %	5.5 %
N-PROPYL NITRATE	2000 ppm	40 ppm(470 mg/m^3)	2 %	100 %
DIACETONE ALCOHOL	2100 ppm	Not listed	1.8 %	6.9 %
1-NITROPROPANE	2300 ppm	Not listed	2.2 %	~
ETHOXYETHYL ACETATE	2500 ppm	Not listed	1.7 %	12.7 %
BUTANE-THIOL	2500 ppm	Not listed	~	~
ETHYL MERCAPTAN	2500 ppm	Not listed	2.8 %	18 %

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
O-METHYLCYCLOHEXANONE	2500 ppm	75 ppm(345 mg/m^3) SKIN	~	~
ETHYL sec-AMYL KETONE	3000 ppm	Not listed	~	~
ETHYL BUTYL KETONE	3000 ppm	Not listed	1.4 %	8.8 %
ISOAMYL ACETATE	3000 ppm	Not listed	(212 F	7.5 %
N-BUTYL GLYCIDYL ETHER	3500 ppm	Not listed	~	~
DIMETHYLFORMAMIDE	3500 ppm	Not listed	2.2 %	15.2 %
N-AMYL ACETATE	4000 ppm	Notlisted	1.1 %	7.5 %
1,2-DICHLOROETHYLENE	4000 ppm	250 ppm(1,000 mg/m^3)	9.7 %	12.8 %
ETHYLAMINE	4000 ppm	Not listed	3.5 %	14 %
ISOPROPYLAMINE	4000 ppm	10 ppm(24 mg/m^3)	2.0 %	10.4 %
SEC-HEXYL ACETATE	4000 ppm	Not listed	0.9	(A ?
METHYLAMYL KETONE	4000 ppm	Not listed	1.1 %	7.9 %
PROPANOL	4000 ppm	250 ppm(625 mg/m^3) SKIN	2 %	14 %
METHYL CELLOSOLVE ACETATE	4000 ppm	Not listed	1.1 %	8.2 %
STYRENE	5000 ppm	100 ppm(425 mg/m^3) SKIN	1.1 %	6.1 %
METHYL FORMATE	5000 ppm	150 ppm(375 mg/m^3)	5 %	23 %
VINYL TOLUENE	5000 ppm	100 ppm	0.1 %	11 %
HEPTANE	5000 ppm	500 ppm(2,000 mg/m^3)	1.1 %	6.7 %
n-HEXANE	5000 ppm	1000 ppm	1.1 %	7.5 %

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
MESITYL OXIDE	5000 ppm	25 ppm(100 mg/m^3)	1.4 %	7.2 %
METHYL PROPYL KETONE	5000 ppm	250 ppm(875 mg/m^3)	1.5 %	8.2 %
OCTANE	5000 ppm	375 ppm(1800 mg/m^3)	1 %	6.5 %
2-HEXANONE	5000 ppm	Not listed	1.2 %	8 %
ALPHA-METHYL STYRENE	5000 ppm	100 ppm	1.9 %	6.1 %
ISO-BUTYL ACETATE	7500 ppm	187 ppm(875 mg/m^3)	2.4 %	10.5 %
TERT-BUTYL ALCOHOL	8000 ppm	150 ppm(450 mg/m^3)	2.4 %	8 %
ETHYL FORMATE	8000 ppm	Not listed	2.8 %	16 %
MORPHOLINE	8000 ppm	Not listed	1.8 %	11 %
N-PROPYL ACETATE	8000 ppm	250 ppm(1,050 mg/m^3)	2 %	8 %
SEC-AMYL ACETATE	9000 ppm	Not listed	1 %	~
BUTYL ACETATE	10000 ppm	200 ppm(950 mg/m^3)	1.7 %	7.6 %
BENZIN	10000 ppm	Not listed	0.8 %	5 %
SEC-BUTYL ACETATE	10000 ppm	Not listed	1.7 %	9.8 %
TERT-BUTYL ACETATE	10000 ppm	Not listed	1.5 %	Not ap
SEC-BUTYL ALCOHOL	10000 ppm	150 ppm(455 mg/m^3)	1.7 %	9.8 %
CYCLOHEXENE	10000 ppm	Not listed	1 %	(212 F
METHYL ACETATE	10000 ppm	250 ppm(760 mg/m^3)	3.1 %	16 %
ISOAMYL ALCOHOL	10000 ppm	125 ppm(450 mg/m^3)	(212 F	(212 F

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
ISOPROPYL ETHER	10000 ppm	310 ppm(1,320 mg/m^3)	1.4 %	7.9 %
METHYLCYCLOHEXANE	10000 ppm	Not listed	1.2 %	6.7 %
VM&P NAPHTHA	10000 ppm	Not listed	~	~
ISOPROPYL ALCOHOL	12000 ppm	500 ppm(1,225 mg/m^3)	2.3 %	12.7 %
METHYLAL	15000 ppm	1,250 ppm(3,875 mg/m^3)	1.6 %	17.6 %
ISOPROPYL ACETATE	16000 ppm	310 ppm(1,185 mg/m^3)	1.8 %	8 %
1,3-BUTADIENE	20000 ppm	Not listed	2 %	11.5 %
CHLOROETHANE	20000 ppm	1,250 ppm(3,250 mg/m^3)	3.8 %	15.4 %
PROPANE	20000 ppm	Not listed	2.2 %	9.5 %
STODDARD SOLVENT	9500 mg/m^3	Not listed	0.8 %	~
o-CHLOROSTYRENE	None given	75 ppm(430 mg/m^3)	~	~
AMMONIUM SULFIDE	None given	Not listed	4%	46%
CALCIUM HYPOCHLORITE	None given	Not listed	Not ap	Not ap
CUPRIC NITRATE	None given	Not listed	Not ap	Not ap
DICHLOROETHANE(ALL ISOMERS)	None given	Not listed	~	~
DICHLOROPROPANE(ALL ISOMERS)	None given	Not listed	~	~
FERRIC NITRATE	None given	as IRON	Not ap	Not ap
ISOPRENE	None given	Not listed	~	~
LEAD NITRATE	None given	DUSTS AND FUMES as LEAD	Not ap	Not ap

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
NICKEL NITRATE	None given	as NICKEL	Not ap	Not ap
POTASSIUM PERMANGANATE	None given	as MANGANESE	Not ap	Not ap
SODIUM NITRATE	None given	Not listed	Not ap	Not ap
TRIMETHYLAMINE	None given	15 ppm(36 mg/m^3)	~	~
VINYL ACETATE	None given	20 ppm(60 mg/m^3)	2.6 %	13.4 %
ZINC NITRATE	None given	Not listed	Not ap	Not ap
HEAVY AROMATIC NAPHTHA	ppm	Not listed	~	~
ACETAL	None given	Not listed	1.6 %	10.4 %
ACETALDEHYDE OXIME	None given	Not listed	~	~
DINITROSOPENTAMETHYLENETETRA-MINE	None given	Not listed	~	~
ACETYLENE	None given	SIMPLE ASPHYXIANT	2.5 %	80 %
ACETYL METHYL CARBINOL	None given	Not listed	~	~
ALLYL ACETATE	None given	Not listed	~	~
ALLYL AMINE	None given	Not listed	4.4 %	7.3 %
ALLYL BROMIDE	None given	Not listed	4.4 %	7.3 %
ALLYL ETHYL ETHER	None given	Not listed	~	~
ALLYL FORMATE	None given	Not listed	~	~
ALLYL IODIDE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
ALLYL TRICHLOROSILANE, STABILIZED	None given	Not listed	~	~
ALUMINUM POWDER, COATED	None given	as ALUMINUM	Not ap	Not ap
ALUMINUM DROSS	None given	as ALUMINUM	Not ap	Not ap
ALUMINUM NITRATE	None given	METAL DUST	Not ap	Not ap
ALUMINUM RESINATE	None given	METAL DUST	~	~
AMINOPROPYLDIETHANOLAMINE	None given	Not listed	~	~
AMINOPROPYLMORPHOLINE	None given	Not listed	~	~
AMMONIUM HYDROSULFIDE	None given	Not listed	Not ap	Not ap
AMMONIUM NITRATE	None given	Not listed	Not ap	Not ap
AMMONIUM NITRATE-CARBONATE MIXTURE	None given	Not listed	~	~
AMMONIUM NITRATE-PHOSPHATE	None given	Not listed	~	~
AMMONIUM PERCHLORATE	None given	Not listed	Not ap	Not ap
AMMONIUM PERSULFATE	None given	Not listed	Not ap	Not ap
AMYL ALCOHOL	None given	Not listed	1.2 %	10 @21
CHLOROMETHYL ETHYL ETHER	None given	Not listed	~	~
AMYL AMINE	None given	Not listed	2.2 %	22 %
AMYL BUTYRATE	None given	Not listed	~	~
AMYL CHLORIDE	None given	Not listed	1.6 %	8.6 %

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
AMYLENE	None given	Not listed	1.6 %	8.7 %
AMYL FORMATE	None given	Not listed	~	~
AMYL HYDRIDE	None given	Not listed	~	~
AMYL MERCAPTAN	None given	Not listed	~	~
AMYL NITRATE	None given	Not listed	~	~
AMYL NITRITE	None given	Not listed	~	~
ANISOLE	None given	Not listed	~	~
BENZOTRIFLUORIDE	None given	Not listed	~	~
BIS(DIMETHYLAMINO)ETHANE	None given	Not listed	~	~
BORATE AND CHLORATEMIXTURE	None given	Not listed	~	~
BORNEOL	None given	Not listed	~	~
BORON TRIFLUORIDE DIETHYLETHERATE	None given	Not listed	~	~
BROMATE, N.O.S.	None given	Not listed	~	~
BROMINE CHLORIDE	None given	Not listed	~	~
BROMINE PENTAFLUORIDE	None given	Not listed	~	~
BROMOBENZENE	None given	Not listed	~	~
2-BROMOBUTANE	None given	Not listed	~	~
BROMOETHYL ETHYL ETHER	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
BROMOETHYLBUTANE	None given	Not listed	~	~
2-BROMO-2-METHYLPROPANE	None given	Not listed	~	~
2-BROMOPROPANE	None given	Not listed	~	~
BROMOPROPYNE	None given	Not listed	Not ap	Not ap
BROMOTRIFLUOROETHYLENE	None given	Not listed	~	~
BUTANE OR BUTANE MIXTURE	None given	Not listed	1.6 %	8.4 %
BUTANEDIONE	None given	Not listed	~	~
BUTOXYL	None given	Not listed	~	~
N-BUTYL ACRYLATE	None given	Not listed	1.4 %	9.4 %
BUTYL ALDEHYDE	None given	Not listed	2.5%	13%
BUTYL BENZENE	None given	Not listed	.8 %	5.8 %
BUTYL BROMIDE	None given	Not listed	~	~
BUTYL CHLORIDE	None given	Not listed	1.8%	10.1 %
BUTYLENE	None given	Not listed	1.6 %	10 %
2,3-DIHYDROINDENE	None given	Not listed	~	~
BUTYL FORMATE	None given	Not listed	~	~
N-BUTYLISOCYANATE	None given	Not listed	~	~
TERT-BUTYLISOCYANATE	None given	Not listed	~	~
BUTYL METHACRYLATE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
BUTYL NITRITE	None given	Not listed	~	~
BUTYL PROPIONATE	None given	Not listed	~	~
BUTYRONITRILE	None given	Not listed	~	~
BUTYRYL CHLORIDE	None given	Not listed	~	~
CALCIUM CHLORATE	None given	Not listed	Not ap	Not ap
CALCIUM CHLORITE	None given	Not listed	Not ap	Not ap
CALCIUM NITRATE	None given	Not listed	Not ap	Not ap
CALCIUM PERCHLORATE	None given	Not listed	~	~
CALCIUM PERMANGANATE	None given	as MANGANESE	Not ap	Not ap
CALCIUM PEROXIDE	None given	Not listed	~	~
CALCIUM RESINATE	None given	Not listed	~	~
CAMPHOR OIL	None given	Not listed	~	~
D-LIMONENE	None given	Not listed	~	~
CARBONYL SULFIDE	None given	Not listed	~	~
ALLYL METHACRYLATE	None given	Not listed	~	~
CERIUM	None given	Not listed	Not ap	Not ap
CESIUM NITRATE	None given	Not listed	Not ap	Not ap
CHLORATE AND MAGNESIUM CHLORIDE MIXTURE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
INDIUM NITRATE	None given	as INDIUM	Not ap	Not ap
CHLORIC ACID SOLUTION	None given	Not listed	~	~
LANTHANUM NITRATE	None given	Not listed	Not ap	Not ap
CHLORINE PENTAFLUORIDE	None given	Not listed	~	~
CHLOROBENZOTRIFLUORIDE	None given	Not listed	~	~
CHLORODIFLUOROETHANE	None given	Not listed	9.0 %	14.8 %
CHLOROPROPENE	None given	Not listed	4.5 %	16 %
CHROMIUM NITRATE	None given	as CHROMIUM	Not ap	Not ap
COBALT NAPHTHENATE	None given	METAL DUST AND FUME AS Cobalt	~	~
COBALT RESINATE	None given	METAL DUST AND FUME AS COBALT	~	~
COPPER CHLORATE	None given	METAL DUST AND FUME AS COBALT	Not ap	Not ap
CYCLOBUTANE	None given	Not listed	~	~
CYCLOHEPTANE	None given	Not listed	~	~
CYCLOHEPTATRIENE	None given	Not listed	~	~
CYCLOHEPTENE	None given	Not listed	~	~
CYCLOHEXYL ACETATE	None given	Not listed	~	~
CYCLOHEXYLAMINE	None given	Not listed	1.5%	9.4%
CYCLOOCTADIENE	None given	Not listed	~	~
CYCLOOCTATETRAENE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
CYCLOPENTANE	None given	Not listed	1.1 %	8.7 %
CYCLOPENTANOL	None given	Not listed	~	~
CYCLOPENTANONE	None given	Not listed	~	~
CYCLOPENTENE	None given	Not listed	~	~
CYCLOPROPANE	None given	Not listed	~	~
METHYLCHLOROSILANE	None given	Not listed	~	~
DECAHYDRONAPHTHALENE	None given	Not listed	~	~
DECANE	None given	Not listed	~	~
DIACETYL	None given	Not listed	~	~
DIALLYLAMINE	None given	Not listed	~	~
DIALLYLETHER	None given	Not listed	~	~
DIBROMOBENZENE	None given	Not listed	~	~
METHYL ORTHOFORMATE	None given	Not listed	~	~
DIBUTYLAMINE	None given	Not listed	~	~
DIBUTYL ETHER	None given	Not listed	~	~
TRANS-1,4-DICHLOROBUTENE	None given	Not listed	~	~
DICHLOROISOCYANURIC ACID	None given	Not listed	~	~
DICHLOROPENTANE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
DICHLOROPROPENE AND PROPYLENE DICHLORIDE MIXTURE	None given	Not listed	~	~
DICHLOROSILANE	None given	Not listed	4.1 %	99 %
DICYCLOHEPTADIENE	None given	Not listed	~	~
DICYCLOPENTADIENE	None given	Not listed	~	~
DIDYMIUM NITRATE	None given	Not listed	Not ap	Not ap
DIETHOXYMETHANE	None given	Not listed	~	~
DIETHOXYPROPENE	None given	Not listed	~	~
DIETHYLAMINOPROPYLAMINE	None given	Not listed	~	~
DIETHYLBENZENE	None given	Not listed	~	~
DIETHYLCARBINOL	None given	Not listed	1.2 %	9.0 %
DIETHYL CARBONATE	None given	Not listed	~	~
DIETHYL DICHLOROSILANE	None given	Not listed	~	~
DIETHYL KETONE	None given	Not listed	1.6 %	~
DIETHYL SULFIDE	None given	Not listed	~	~
DIFLUOROETHANE	None given	Not listed	3.7 %	18 %
DIFLUOROETHYLENE	None given	Not listed	~	~
DIFLUOROMONOCHLOROETHANE	None given	Not listed	6.2 %	17.9 %
DIHYDROPYRAN	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
DI-ISOBUTYLAMINE	None given	Not listed	~	~
DI-ISOBUTYLENE	None given	Not listed	0.8 %	4.8 %
DIKETENE	None given	Not listed	~	~
DIMETHOXYETHANE	None given	Not listed	~	~
DIMETHYLAMINOACETONITRILE	None given	Not listed	~	~
DIMETHYLAMINOETHANOL	None given	Not listed	~	~
DIMETHYLBUTANE	None given	1000 ppm	~	~
DIMETHYLBUTYLAMINE	None given	Not listed	~	~
DIMETHYL CARBONATE	None given	Not listed	~	~
DIMETHYLCYCLOHEXANE	None given	Not listed	~	~
DIMETHYLDICHLOROSILANE	None given	Not listed	3.4 %	9.5 %
DIMETHYLDIETHOXYSILANE	None given	Not listed	~	~
DIMETHYLDIOXANE	None given	Not listed	~	~
METHYL DISULFIDE	None given	Not listed	~	~
DIMETHYL ETHER	None given	Not listed	3.4 %	27.0 %
DIMETHYLPROPANE	None given	Not listed	~	~
DIMETHYLPROPYLAMINE	None given	Not listed	~	~
DIMETHYL SULPHIDE	None given	Not listed	2.2 %	19.7 %

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
DINITROPHENOL, WET WITH NOT LESS THAN 15% WATER	None given	Not listed	~	~
DIOXOLAN	None given	Not listed	~	~
DIPENTENE	None given	Not listed	0.7 %	6.1 %
DIPROPYL ETHER	None given	Not listed	1.3 %	7.0 %
DIVINYL ETHER, INHIBITED	None given	Not listed	1.7 %	27 %
DRIERS, PAINT, LIQUID, N.O.S.	None given	Not listed	~	~
EPOXY ETHYLOXY PROPANE	None given	Not listed	~	~
ETHANE	None given	SIMPLE ASPHYXIANT	~	~
ETHANOL	None given	Not listed	3.3 %	19 %
ETHOXYPROPANE	None given	Not listed	~	~
ETHYLACETYLENE	None given	Not listed	~	~
ETHYL BORATE	None given	Not listed	~	~
ETHYLBUTANOL	None given	Not listed	1.9%	8.8%
ETHYLBUTYL ACETATE	None given	Not listed	~	~
ETHYLBUTYL ETHER	None given	Not listed	~	~
ETHYLBUTYRALDEHYDE	None given	Not listed	1.2 %	7.7 %
ETHYL BUTYRATE	None given	Not listed	~	~
ETHYL CHLOROFORMATE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
ETHYL CROTONATE	None given	Not listed	~	~
ETHYL DICHLOROSILANE	None given	Not listed	~	~
ETHYLENE	None given	SIMPLE ASPHYXIANT	2.7 %	3.6 %
ETHYLENE, LIQUID	None given	Not listed	2.7 %	36 %
DIETHOXYETHANE	None given	Not listed	~	~
ETHYLENE OXIDE-CARBON DIOXIDE MIXTURE	None given	Not listed	~	~
ETHYL FLUORIDE	None given	Not listed	~	~
ETHYL HEXALDEHYDE	None given	Not listed	0.85 @	7.20 @
ETHYL ISOBUTYRATE	None given	Not listed	~	~
ETHYL ISOCYANATE	None given	Not listed	~	~
ETHYL LACTATE	None given	Not listed	1.5 @	11.4 %
ETHYL NITRATE	None given	Not listed	4.0 %	~
ETHYL NITRITE	None given	Not listed	3 %	50 %
ETHYL ORTHOFORMATE	None given	Not listed	~	~
ETHYL PIPERIDINE	None given	Not listed	~	~
ETHYL PROPIONATE	None given	Not listed	~	~
ETHYL PROPYL ETHER	None given	Not listed	1.7 %	~
TRICHLOROETHYLSILANE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
FLUOROBENZENE	None given	Not listed	~	~
FLUOROTOLUENE	None given	Not listed	~	~
FUEL, AVIATION, TURBINE ENGINE	None given	Not listed	~	~
FUEL OIL	None given	Not listed	~	~
FURFURYLAMINE	None given	Not listed	~	~
FUSEL OIL	None given	Not listed	~	~
GASOLINE	None given	500 ppm(1,500 mg/m^3)	1.4 %	7.4 %
GERMANIUM HYDRIDE	None given	0.6 ppm(1.8 mg/m^3)	~	~
GUANIDINE NITRATE	None given	Not listed	~	~
HEPTENE	None given	Not listed	~	~
HEXADIENE	None given	Not listed	~	~
HEXALDEHYDE	None given	Not listed	~	~
HEXAMETHYLENEIMINE	None given	Not listed	1.6 %	2.3 %
HEXAMINE	None given	Not listed	~	~
HEXENE	None given	Not listed	1.2 %	6.9 %
HYDROGEN	None given	Not listed	4 %	75 %
HYDROGEN, LIQUID	None given	Not listed	04 %	74 %
HYDROGEN AND METHANE MIXTURE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
HYDROGEN PEROXIDE SOLUTION, WITH MORE THAN 8% AND NOT MORE THAN 60% PEROXIDE	None given	Not listed	Not ap	Not ap
INK	None given	Not listed	~	~
IODINE PENTAFLUORIDE	None given	Not listed	~	~
IODO BUTANE	None given	Not listed	~	~
IODO METHYLPROPANE	None given	Not listed	~	~
IRON PENTACARBONYL	None given	0.2 ppm(1.6 mg/m^3)	~	~
ISOBUTANE	None given	Not listed	1.8 %	8.4 %
1,2,3-TRIMETHYLBENZENE	None given	Not listed	~	~
ISOBUTYL ACRYLATE	None given	Not listed	1.9 %	8.0 %
ISO-BUTYLAMINE	None given	Not listed	3.4 %	~
ISOBUTYLENE	None given	Not listed	1.8 %	9.6 %
ISOBUTYL FORMATE	None given	Not listed	2.0 %	8.0 %
ISOBUTYL ISOBUTYRATE	None given	Not listed	.96 %	7.59 %
ISOBUTYL ISOCYANATE	None given	Not listed	~	~
ISOBUTYLMETHACRYLATE	None given	Not listed	~	~
ISOBUTYL PROPIONATE	None given	Not listed	~	~
ISO-BUTYRIC ACID	None given	Not listed	~	~
ISOBUTYRIC ANHYDRIDE	None given	Not listed	1.0 %	6.2 %

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
ISOBUTYRONITRILE	None given	Not listed	~	~
ISOBUTYRYLCHLORIDE	None given	Not listed	~	~
ISOHEPTENE	None given	Not listed	~	~
ISOHEXENE	None given	Not listed	~	~
ISOOCTANE	None given	Not listed	1.1 %	6.0 %
ISOOCTENE	None given	Not listed	~	~
ISOPENTANE	None given	Not listed	1.4 %	7.6 %
ISOPENTENE	None given	Not listed	~	1.5 %
ISOPROPENYL ACETATE	None given	Not listed	~	~
ISOPROPYL CHLOROFORMATE	None given	Not listed	Not ap	Not ap
ISOPROPYLFORMATE	None given	Not listed	~	~
ISOPROPYL ISOBUTYRATE	None given	Not listed	~	~
ISOPROPYL ISOCYANATE	None given	Not listed	~	~
ISOPROPYL MERCAPTAN	None given	Not listed	~	~
ISOPROPYL NITRATE	None given	Not listed	~	100 %
ISOPROPYL PROPIONATE	None given	Not listed	~	~
KEROSENE	None given	Not listed	0.7 %	5.0 %
LEAD DIOXIDE	None given	DUSTS AND FUMES as LEAD	Not ap	Not ap
LEAD PERCHLORATE	None given	DUSTS AND FUMES as LEAD	Not ap	Not ap

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
LEAD TETRAMETHYL	None given	Not listed	1.8 %	~
LIGHTER FLUID	None given	Not listed	~	~
LIQUIFIED PETROLEUM GAS	None given	Not listed	~	~
LITHIUM ALUMINUM HYDRIDE, ETHER SOLUTION	None given	Not listed	~	~
LITHIUM HYPOCHLORITE	None given	Not listed	Not ap	Not ap
LITHIUM NITRATE	None given	Not listed	Not ap	Not ap
LITHIUM PEROXIDE	None given	Not listed	~	~
MAGNESIUM BROMATE	None given	Not listed	Not ap	Not ap
MAGNESIUM CHLORATE	None given	Not listed	Not ap	Not ap
MAGNESIUM NITRATE	None given	Not listed	Not ap	Not ap
MAGNESIUM PERCHLORATE	None given	Not listed	Not ap	Not ap
MAGNESIUM PEROXIDE	None given	Not listed	~	~
VINYL CHLOROACETATE	None given	Not listed	~	~
MANGANESE DIOXIDE	None given	as MANGANESE	Not ap	Not ap
MANGANESE NITRATE	None given	as MANGANESE	Not ap	Not ap
METALDEHYDE	None given	Not listed	~	~
METHACRYLALDEHYDE	None given	Not listed	~	~
METHALLYL ALCOHOL	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
METHANE	None given	SIMPLE ASPHYXIANT	5.53%	15%
METHANE AND NATURAL GAS WITH A HIGH METHANE CONTENT, COMPRESSED	None given	Not listed	~	~
METHOXYMETHYL ISOCYANATE	None given	Not listed	~	~
METHOXYMETHYLPENTANONE	None given	Not listed	~	~
METHYL ACETYLENE, MIXED WITH 15% TO 20% PROPADIENE, STABILIZED	None given	Not listed	~	~
METHYL ALLYL CHLORIDE	None given	Not listed	~	~
METHYLAMINE, AQUEOUS SOLUTION	None given	Not listed	~	~
METHYLAMYL ALCOHOL	None given	Not listed	1.0 %	5.5 %
BUTYL METHYL ETHER	None given	Not listed	~	~
METHYL BUTYRATE	None given	Not listed	~	~
METHYL CHLORIDE AND METHYLENE CHLORIDE MIXTURE	None given	Not listed	~	~
METHYL CYCLOHEXANONE	None given	Not listed	~	~
METHYL CYCLOPENTANE	None given	Not listed	1.8 %	8.4 %
METHYL DICHLOROSILANE	None given	Not listed	~	~
METHYL ETHYL ETHER	None given	Not listed	2.0 %	10.1 %
METHYL FLUORIDE	None given	Not listed	~	~
METHYLFURAN	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
METHYLHEXANONE	None given	Not listed	~	~
METHYL ISOTHIOCYANATE	None given	Not listed	~	~
METHYLISOVALERATE	None given	Not listed	~	~
METHYL MAGNESIUM BROMIDE, IN ETHYL ETHER	None given	Not listed	~	~
METHYL METHACRYLATE, MONOMER, INHIBITED	None given	Not listed	~	~
METHYLMORPHOLINE	None given	Not listed	~	~
METHYL ORTHOSILICATE	None given	Not listed	~	~
METHYLPENTADIENE	None given	Not listed	~	~
METHYLPENTANE	None given	1000 ppm	1.0%	7.0%
METHYLPENTANOL	None given	Not listed	~	~
METHYLPIPERIDINE	None given	Not listed	~	~
METHYLPROPENYL KETONE, INHIBITED	None given	Not listed	~	~
METHYL PROPIONATE	None given	Not listed	~	~
CYMENE	None given	Not listed	0.7 %	5.6 %
METHYL PROPYL ETHER	None given	Not listed	~	~
METHYL TETRAHYDROFURAN	None given	Not listed	~	~
METHYLTRICHLOROSILANE	None given	Not listed	7.6 %	20 %
METHYL VALERALDEHYDE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
METHYL VINYL KETONE	None given	Not listed	2.1 %	15.6 %
MOTOR FUEL ANTI-KNOCK COMPOUND	None given	Not listed	~	~
NAPHTHA DISTILLATE	None given	Not listed	~	~
NEOHEXANE	None given	1000 ppm	~	~
NEOPENTANE	None given	Not listed	1.4%	7.5%
NICKEL NITRITE	None given	as NICKEL	~	~
NITRATE OF SODIUM AND POTASH MIXTURE	None given	Not listed	Not ap	Not ap
NITRATING ACID	None given	Not listed	Not ap	Not ap
NITRIC OXIDE AND NITROGEN TETROXIDE MIXTURE	None given	Not listed	~	~
NITROCELLULOSE, WITH PLASTICIZER	None given	Not listed	~	~
MONOMETHYLAMINE, AQUEOUS SOLUTION	None given	15 ppm(19 mg/m^3)	~	~
NITROCELLULOSE, WET WITH MORE THAN 40% FLAMMABLE LIQUID BY WEIGHT	None given	Not listed	~	~
NITROCELLULOSE, WET WITH NOT LESS THAN 20% WATER	None given	Not listed	~	~
NITROGEN TETROXIDE	None given	5 ppm	~	~
NITROGEN TRIOXIDE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
NITRONAPHTHALENE	None given	Not listed	~	~
NITROPROPANE	None given	Not listed	~	~
NITROSTARCH, WET WITH NOT LESS THAN 30% SOLVENT	None given	Not listed	~	~
NONANE	None given	Not listed	~	~
1,7-OCTADIENE	None given	Not listed	~	~
OCTYL ALDEHYDE	None given	Not listed	~	~
OXYGEN	None given	Not listed	~	~
PAINT, ETC. FLAMMABLE LIQUID	None given	Not listed	~	~
PENTANE	None given	750 ppm(2,250 mg/m^3)	1.5 %	7.8 %
PENTANE-2,4-DIONE	None given	Not listed	2.4 %	11.6 %
PETROLEUM ETHER	None given	Not listed	~	~
PHOSPHORUS, AMORPHOUS, RED	None given	Not listed	Not ap	Not ap
PHOSPHORUS SESQUISULFIDE	None given	Not listed	~	~
PHOSPHORUS TRISULFIDE	None given	Not listed	~	~
PICRIC ACID, WET WITH NOT	None given	Not listed	~	~
PINENE	None given	Not listed	~	~
PINE OIL	None given	Not listed	~	~
PIPERIDINE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
PIVALOYL CHLORIDE	None given	Not listed	~	~
POTASSIUM BROMATE	None given	Not listed	Not ap	Not ap
POTASSIUM CHLORATE	None given	Not listed	Not ap	Not ap
POTASSIUM DICHLOROISOCYANURATE	None given	Not listed	~	~
POTASSIUM NITRATE	None given	Not listed	Not ap	Not ap
POTASSIUM NITRITE	None given	Not listed	Not ap	Not ap
POTASSIUM PERCHLORATE	None given	Not listed	Not ap	Not ap
POTASSIUM PEROXIDE	None given	Not listed	~	~
POTASSIUM PERSULFATE	None given	Not listed	Not ap	Not ap
POTASSIUM SUPEROXIDE	None given	Not listed	~	~
PROPADIENE	None given	Not listed	1.7%	11.7%
PROPIONALDEHYDE	None given	Not listed	2.6 %	16.1 %
PROPIONYL CHLORIDE	None given	Not listed	~	~
PROPYL BENZENE	None given	Not listed	~	~
PROPYL CHLORIDE	None given	Not listed	2.6%	11.1%
PROPYLCHLOROFORMATE	None given	Not listed	Not ap	Not ap
PROPYLENE	None given	Not listed	2 %	11.1 %
PROPYL FORMATE	None given	Not listed	2.3%	~
PROPYL ISOCYANATE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
PROPYL MERCAPTAN	None given	Not listed	~	~
PROPYL NITRATE	None given	40 ppm	~	~
PYROXYLIN SOLUTION	None given	Not listed	~	~
PYROLIDINE	None given	Not listed	~	~
RESIN SOLUTION	None given	Not listed	~	~
SHELLAC	None given	Not listed	~	~
SILANE	None given	Not listed	~	~
SILICON POWDER, AMORPHOUS	None given	Not listed	~	~
SODIUM BROMATE	None given	Not listed	Not ap	Not ap
SODIUM CHLORATE SOLUTION	None given	Not listed	Not ap	Not ap
SODIUM CHLORITE	None given	Not listed	Not ap	Not ap
SODIUM DICHLOROISOCYANATE	None given	Not listed	~	~
SODIUM DICHLORO-S-TRIAZINETRIONE	None given	Not listed	Not ap	Not ap
SODIUM DINITRIO-ORTHO-CRESOLATE, WET WITH NOT LESS THAN 15% WATER	None given	Not listed	~	~
SODIUM METHYLATE, SOLUTIONS IN ALCOHOL	None given	Not listed	~	~
SODIUM NITRITE	None given	Not listed	Not ap	Not ap
SODIUM PERCARBONATE	None given	Not listed	Not ap	Not ap
SODIUM PERCHLORATE	None given	Not listed	Not ap	Not ap

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
SODIUM PERMANGANATE	None given	as MANGANESE	Not ap	Not ap
SODIUM PEROXIDE	None given	Not listed	~	~
SODIUM PERSULFATE	None given	Not listed	Not ap	Not ap
SODIUM SUPEROXIDE	None given	Not listed	~	~
STRONTIUM CHLORATE	None given	Not listed	Not ap	Not ap
STRONTIUM NITRATE	None given	Not listed	Not ap	Not ap
STRONTIUM PERCHLORATE	None given	Not listed	Not ap	Not ap
STRONTIUM PEROXIDE	None given	Not listed	~	~
SULFUR, MOLTEN	None given	Not listed	~	~
TRIFLUOROCHLOROETHYLENE	None given	Not listed	~	~
TRIFLUOROETHANE	None given	Not listed	~	~
TRIISOBUTYLENE	None given	Not listed	~	~
TRIISOPROPYL BORATE	None given	Not listed	~	~
TRIMETHYLACETYLCHLORIDE	None given	Not listed	~	~
TRIMETHYL BORATE	None given	Not listed	~	~
TRIMETHYLCHLOROSILANE	None given	Not listed	1.8 %	~
TRIMETHYL PHOSPHITE	None given	Not listed	~	~
TRINITROBENZOIC ACID, WET	None given	Not listed	~	~
TRIPROPYLAMINE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
TRIPROPYLENE	None given	Not listed	~	~
UNDECANE	None given	Not listed	~	~
UREA NITRATE, WET	None given	Not listed	~	~
UREA PEROXIDE	None given	Not listed	~	~
VALERALDEHYDE	None given	Not listed	~	~
VINYL BROMIDE	None given	Suspected human carcinogen (A2)	~	~
BUTYL VINYL ETHER	None given	Not listed	~	~
VINYL BUTYRATE	None given	Not listed	~	~
VINYL ETHYL ETHER	None given	Not listed	~	~
VINYL FLUORIDE	None given	Not listed	2.6 %	.7 %
VINYLIDENE FLUORIDE	None given	Not listed	~	~
VINYL METHYL ETHER, INHIBITED	None given	Not listed	~	~
VINYL TRICHLOROSILANE	None given	Not listed	~	~
ZINC AMMONIUM NITRITE	None given	Not listed	Not ap	Not ap
ZINC BROMATE	None given	Not listed	Not ap	Not ap
ZINC CHLORATE	None given	Not listed	Not ap	Not ap
ZINC PERMANGANATE	None given	as MANGANESE	Not ap	Not ap
ZINC PEROXIDE	None given	Not listed	~	~
ZINC RESINATE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
ZIRCONIUM METAL POWDER, WET	None given	10 mg/m^3 ppm	Not ap	Not ap
COPPER NAPHTHENATE	None given	Not listed	~	~
1-FLUORO-3-BROMOBENZENE	None given	Not listed	~	~
TERPENE HYDROCARBONS, N.O.S.	None given	Not listed	~	~
TERPINOLENE	None given	Not listed	~	~
TETRAFLUOROETHYLENE, INHIBITED	None given	Not listed	~	~
TETRAHYDROBENZALDEHYDE	None given	Not listed	~	~
TETRAHYDROPYRIDINE	None given	Not listed	~	~
TETRAHYDROTHIOPHENE	None given	Not listed	~	~
TETRAMETHYL SILANE	None given	Not listed	~	~
THIOACETIC ACID	None given	Not listed	~	~
THIOPHENE	None given	Not listed	~	~
TITANIUM HYDRIDE	None given	Not listed	Not ap	Not ap
TITANIUM METAL, WET WITH NOT LESS THAN 25% WATER	None given	Not listed	Not ap	Not ap
TRIALLYLAMINE	None given	Not listed	~	~
2-CHLOROETHYL ETHYL SULFIDE	None given	Not listed	~	~
TRICHLOROISOCYANURIC ACID	None given	Not listed	~	~
TRICHLOROSILANE	None given	Not listed	1.2 %	90.5 %

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
TRICHLOROTRIAZINETRIONE	None given	Not listed	~	~
TRIETHYL PHOSPHITE	None given	Not listed	~	~
EMERY	None given	20 mg/m^3	~	~
ETHYLIDENE NORBORNENE	None given	Not listed	~	~
ISOPROPOXYETHANOL	None given	Not listed	~	~
METHYL ISOAMYL KETONE	None given	Not listed	1.0 @	8.2 @
ISOPROPYL METHYL KETONE	None given	Not listed	~	~
SILICON, CONTAINING NO ASBESTOS AND LESS THAN 1% CRYSTALLINE SILICA	None given	Total Dust	Not ap	Not ap
MESITYLENE	None given	Not listed	~	~
GALLIUM(III) NITRATE	None given	Not listed	Not ap	Not ap
PROPENOL, 1-METHYL	None given	Not listed	~	~
n-DECYLBENZENE	None given	Not listed	~	~
ETHOXYDIHYDROPYRAN	None given	Not listed	~	~
n-ETHYL-n-BUTYLAMINE	None given	Not listed	~	~
2-METHYL-2-HYDROXY-3-BUTYNE	None given	Not listed	~	~
PROPYLENE SULFIDE	None given	Not listed	~	~
N,N,N',N'-TETRAMETHYL-1, 3-BUTANEDIAMINE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
1,2-BIS(DIMETHYLAMINO)ETHANE	None given	Not listed	~	~
BROMINE TRIFLUORIDE	None given	Not listed	~	~
3,4-DICHLORONITROBENZENE	None given	Not listed	~	~
DIETHYLENE GLYCOL DIETHYL ETHER	None given	Not listed	~	~
1-FLUORO-2-BROMOBENZENE	None given	Not listed	~	~
N-HEXYLAMINE	None given	Not listed	~	~
NICKEL PERCHLORATE	None given	as NICKEL	Not ap	Not ap
METHYLTRIMETHOXYSILANE	None given	Not listed	~	~
PROPYL PROPIONATE	None given	Not listed	~	~
1,2,3,6-TETRAHYDRO-BENZALDEHYDE	None given	Not listed	~	~
N-HEXYL ACETATE	None given	Not listed	~	~
3,4-DICHLORO-1-BUTENE	None given	Not listed	~	~
3-HEPTANOL	None given	Not listed	~	~
TERT-BUTYL ISOCYANATE	None given	Not listed	~	~
L-LIMONENE	None given	Not listed	~	~
METHYLTRIETHOXYSILANE	None given	Not listed	~	~
MYRCENE	None given	Not listed	~	~
PALLADIUM DINITRATE	None given	Not listed	Not ap	Not ap

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
ISOCYANIC ACID, METHOXYMETHYL ESTER	None given	Not listed	~	~
ALLYLTRICHLOROSILANE	None given	Not listed	~	~
LIQUID OXYGEN	None given	Not listed	~	~
METHYL ISOPENTYL KETONE	None given	Not listed	1.8 %	9 %
ACETYLACETONE	None given	Not listed	2.4 %	11.6 %
ORTHO-CYMENE	None given	Not listed	~	~
1,3-DICHLOROPROPANE	None given	Not listed	~	~
2,3-DICHLORO PROPENE	None given	Not listed	~	~
SEC-BUTYL CHLOROFORMATE	None given	Not listed	~	~
CIS-1,2-DICHLOROETHYLENE	None given	Not listed	~	~
ALUMINUM RESINATE	None given	METAL DUST	~	~
PENTENE	None given	Not listed	~	~
ISOPENTYL ALCOHOL, NITRITE	None given	Not listed	~	~
PROPIONITRILE, 2,2'-AZOBIS(2-METHYL-	None given	Not listed	~	~
BUTYRALDEHYDE, OXIME	None given	Not listed	~	~
sec-BUTYLAMINE, (S)-	None given	Not listed	Not ap	Not ap
PERCHLORIC ACID, CALCIUM SALT	None given	Not listed	Not ap	Not ap
PROPANE, 2-CHLORO-	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
3-OCTANONE	None given	Not listed	~	~
BUTANE, 2-IODO-	None given	Not listed	~	~
CHLORIC ACID, COPPER SALT	None given	as COPPER	Not ap	Not ap
CYCLOHEXANETHIOL	None given	Not listed	~	~
CYCLOOCTADIENE	None given	Not listed	~	~
TOLUENE, o-CHLORO-	None given	Not listed	~	~
BUTENE, DICHLORO-	None given	Not listed	~	~
PROPANE, 1,1-DICHLORO-	None given	Not listed	3.1 %	Not ap
1-PROPENE, DICHLORO-	None given	Not listed	~	~
METHANE, DIETHOXY-	None given	Not listed	~	~
ETHYLENEDIAMINE, N,N-DIETHYL-	None given	Not listed	~	~
PENTENE, 2,4,4-TRIMETHYL-	None given	Not listed	~	~
PROPYLAMINE, N,N-DIMETHYL-	None given	Not listed	~	~
PROPANE, 1-BROMO-2-METHYL-	None given	Not listed	~	~
PIPERIDINE, 1-METHYL-	None given	Not listed	~	~
PROPIONIC ACID, 2-CHLORO-, ETHYL ESTER	None given	Not listed	~	~
FERROCERIUM	None given	Not listed	Not ap	Not ap
PROPANE, 1-IODO-2-METHYL-	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
PROPANE, 2-IODO-2-METHYL-	None given	Not listed	~	~
PROPANE, IODO-	None given	Not listed	~	~
ISOCYANIC ACID, ISOBUTYL ESTER	None given	Not listed	~	~
ISOHEPTENE	None given	Not listed	~	~
ISOHEXENE	None given	Not listed	~	~
BUTYRIC ACID, ISOPROPYL ESTER	None given	Not listed	~	~
ACETIC ACID, CHLORO-, ISOPROPYL ESTER	None given	Not listed	~	~
ISOBUTYRIC ACID, ISOPROPYL ESTER	None given	Not listed	~	~
MANGANESE RESINATE	None given	as MANGANESE	~	~
BUTENE, 2-METHYL-	None given	Not listed	~	~
PROPIONIC ACID, 2-CHLORO-, METHYL ESTER	None given	Not listed	~	~
FURAN, TETRAHYDROMETHYL-	None given	Not listed	~	~
VALERALDEHYDE, 2-METHYL-	None given	Not listed	~	~
NITROUS ACID, NICKEL (2+) SALT	None given	as NICKEL	~	~
NAPHTHALENE, MONONITRO-	None given	Not listed	~	~
MORPHOLINE, 4-METHYL-	None given	Not listed	~	~
OCTADIENE	None given	Not listed	~	~
HEPTANE, PENTAMETHYL-	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
PICOLINE	None given	Not listed	~	~
BICYCLO(3.1.1)HEPTANE, 2,6,6-TRIMETHYL-, DIDEHYDRO deriv.	None given	Not listed	~	~
tert-BUTYLAMINE	None given	Not listed	1.7 %	8.9 %
1-HEPTANAL, 6-METHYL-	None given	Not listed	~	~
TOLUENE, p-CHLORO-	None given	Not listed	~	~
ACETALDEHYDE, DIMETHYLACETAL	None given	Not listed	~	~
3-BUTEN-2-ONE, 3-METHYL-	None given	Not listed	~	~
ISOBUTYRALDEHYDE	None given	Not listed	2 %	10 %
BUTYRALDEHYDE, 2-METHYL-	None given	Not listed	~	~
t-PENTYL ALCOHOL	None given	Not listed	~	~
STYRENE, METHYL- (mixed isomers)	None given	STYRENE MONOMER - SKIN	~	~
SODIUM PEROXYCARBONATE	None given	Not listed	~	~
PEROXYDICARBONIC ACID, DISODIUM SALT	None given	Not listed	~	~
SEC-BUTYLAMINE	None given	Not listed	1.7 %	2.52 %
1-BUTENE OXIDE	None given	Not listed	1.5 %	18.3 %
iso-BUTYRALDEHYDE	None given	Not listed	2 %	10 %
CADMIUM NITRATE	None given	as CADMIUM	Not ap	Not ap
CADMIUM NITRATE TETRAHYDRATE	None given	as CADMIUM	Not ap	Not ap

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
CARENE	None given	Not listed	~	~
ACETOPHENONE, 4'-METHOXY-	None given	Not listed	~	~
ACETONITRILE, (DIETHYLAMINO)-	None given	Not listed	~	~
PROPENE, 2-CHLORO-	None given	Not listed	4.5 %	16 %
ACETIC ACID, DIAZO-, ETHYL ESTER	None given	Not listed	~	~
FURFURYLAMINE, TETRAHYDRO-	None given	Not listed	~	~
1,2,3,6-TETRAHYDRO-PYRIDINE,	None given	Not listed	~	~
PROPYL ALCOHOL, TITANIUM(4+) SALT	None given	Not listed	~	~
TITANIUM HYDRIDE	None given	Not listed	~	~
ETHANE, TRIFLUORO-	None given	Not listed	~	~
PROPENE, 2-METHYL-, TRIMER	None given	Not listed	~	~
2-PENTANOL	None given	Not listed	~	~
PENTANE, 1-BROMO-	None given	Not listed	~	~
NICKEL(II) NITRATE	None given	as NICKEL	Not ap	Not ap
SILANE, TRIMETHOXY-	None given	Not listed	~	~
1-HEPTANETHIOL	None given	Not listed	~	~
CHROMIUM(III) NITRATE	None given	as CHROMIUM	Not ap	Not ap
IRON(II) NITRATE HEXAHYDRATE (1:2:6)	None given	as IRON	Not ap	Not ap

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
ETHER, ISOBUTYL VINYL	None given	Not listed	~	~
PYRROLE	None given	Not listed	~	~
1-BUTENE, 3,4-EPOXY-	None given	Not listed	~	~
BUTYRIC ACID, BUTYL ESTER	None given	Not listed	~	~
2-CHLORO-2-METHYL-PROPANE,	None given	Not listed	~	~
BENZENE, sec-BUTYL-	None given	Not listed	~	~
CROTONYLENE	None given	Not listed	1.4 %	~
2-PROPANOL, 1-CHLORO-	None given	Not listed	~	~
TOLUENE, o-CHLORO-alpha,alpha,alpha-TRIFLUORO	None given	Not listed	~	~
-2-BUTEN-1-OL	None given	Not listed	~	~
BUTYLAMINE, N-METHYL-	None given	Not listed	~	~
CYCLOHEXANE, CHLORO-	None given	Not listed	~	~
2-BUTENE, 1,3-DICHLORO-	None given	Not listed	~	~
PENTANE, 1,5-DICHLORO-	None given	Not listed	~	~
BENZENE, m-DIETHYL-	None given	Not listed	~	~
BENZENE, o-DIETHYL-	None given	Not listed	~	~
1,3-DIMETHYL-CYCLOHEXANE,	None given	Not listed	~	~
2,3-DIMETHYL-VALERALDEHYDE,	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
N,N-DIMETHYL-1,3-PROPANEDIAMINE,	None given	Not listed	~	~
CYANAMIDE, DIMETHYL-	None given	Not listed	~	~
FURAN, 2,5-DIMETHYL-	None given	Not listed	~	~
1-(DIMETHYLAMINO)-2-PROPANOL,	None given	Not listed	~	~
MORPHOLINE, 2,6-DIMETHYL-	None given	Not listed	~	~
BORIC ACID, ETHYL ESTER	None given	Not listed	~	~
CYCLOPENTANE, ETHYL-	None given	Not listed	~	~
CYCLOHEXYLAMINE, N-ETHYL-	None given	Not listed	~	~
PIPERIDINE, 1-ETHYL-	None given	Not listed	~	~
3-HEXANONE	None given	Not listed	~	~
BENZENE, ISOBUTYL-	None given	Not listed	~	~
N-ISOPROPYL-CYCLOHEXYLAMINE,	None given	Not listed	~	~
PROPYLAMINE, 3-METHOXY-	None given	Not listed	~	~
PIPERAZINE, 1-METHYL-	None given	Not listed	~	~
1-BUTANOL, 2-METHYL-	None given	Not listed	~	~
1-BUTENE, 2-METHYL-	None given	Not listed	~	~
2-BUTANOL, 3-METHYL-	None given	Not listed	~	~
2-ETHYL-2-METHYL-1,3-DIOXOLANE,	None given	Not listed	~	~
2-PENTENE, 2-METHYL-	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
2-PROPANETHIOL, 2-METHYL-	None given	Not listed	~	~
PENTANE, 3-METHYL-	None given	1000 ppm	~	~
PYRAZINE, 2-METHYL-	None given	Not listed	~	~
PYRROLIDINE, 1-METHYL-	None given	Not listed	~	~
NORBORNADIENE	None given	Not listed	~	~
BIS(1,3-DIMETHYL)-BUTYLAMINE,	None given	Not listed	~	~
s-TRIOXANE	None given	Not listed	~	~
BUTYRIC ACID, PROPYL ESTER	None given	Not listed	~	~
STANNANE, TETRAMETHYL-	None given	0.2 mg/m^3 as Sn, Skin	~	~
8,4-OXATHIANE	None given	Not listed	~	~
CROTONIC ACID, VINYL ESTER	None given	Not listed	~	~
1-CYCLOHEXENE, 4-VINYL-	None given	Not listed	~	~
COBALT(II) PERCHLORATE, HEXAHYDRATE	None given	METAL DUST AND FUME AS COBALT	Not ap	Not ap
3-HEXEN-1-OL, (Z)-	None given	Not listed	~	~
TOLUENE, m-CHLORO-	None given	Not listed	~	~
ISOOCTANE	None given	Not listed	~	~
ISOHEPTANE	None given	Not listed	~	~
PROPYNE, mixed with PROPADIENE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
OXIRANE, ((1,1-DIMETHYLETHOXY)METHYL)-	None given	Not listed	~	~
1-HEXANETHIOL	None given	Not listed	~	~
(+-)-1,2:3,4-DIEPOXY-BUTANE,	None given	Not listed	~	~
1-CHLORO-2-METHYL-PROPENE,	None given	Not listed	~	~
PENTANE, 2-BROMO-	None given	Not listed	~	~
2-PENTANOL, 2-METHYL-	None given	Not listed	~	~
3-PENTANOL, 2-METHYL-	None given	Not listed	~	~
3-PENTANOL, 3-METHYL-	None given	Not listed	~	~
ISOHEXYL ALCOHOL	None given	Not listed	~	~
TOLUENE, p-FLUORO-	None given	Not listed	~	~
DIESEL FUEL MARINE	None given	Not listed	0.5 %	7.5 %
DIESEL FUEL	None given	Not listed	0.5 %	7.5 %
ACETIC ACID, 2-METHOXY-1-METHYLETHYL ESTER	None given	Not listed	~	~
BUTANE, 2-CHLORO-	None given	Not listed	~	~
ETHER, METHYL VINYL	None given	Not listed	2.6 %	39 %
BUTANE, 1-BROMO-3-METHYL-	None given	Not listed	~	~
PHOSPHORUS HEPTASULFIDE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH-STEL	LEL	UEL
PERCHLORIC ACID, NICKEL(2+) SALT, HEXAHYDRATE	None given	as NICKEL	Not ap	Not ap
METHYL THIOCYANATE	None given	Not listed	~	~
1,3-DIOXOLANE	None given	Not listed	~	~
BENZENE. o-DIFLUORO-	None given	Not listed	~	~
2-BUTENE, 1,4-DICHLORO-(E)-,	None given	Not listed	Not ap	Not ap
PSEUDOCUMENE	None given	Not listed	~	~
ACRYLYL CHLORIDE	None given	Not listed	Not ap	Not ap
ETHYL THIOCYANATE	None given	Not listed	Not ap	Not ap
TRIETHOXYSILANE	None given	Not listed	Not ap	Not ap
VINYLNORBORNENE	None given	Not listed	~	~
AMPHETAMINE	None given	Not listed	Not ap	Not ap
METHACRYLOYL CHLORIDE	None given	Not listed	Not ap	Not ap
METHYL HEPTANETHIOL	None given	Not listed	~	~
METHYL tert-BUTYL ETHER	None given	Not listed	~	~
2-ETHOXYDIHYDROPYRAN	None given	Not listed	~	~
N,N-DIMETHYL FORMAMIDE	None given	Not listed	~	~
1-DECENE	None given	Not listed	~	~
BUTYLTRICHLOROSILANE	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
1-PENTENE	None given	Not listed	~	8.7 %
COBALT NITRATE	None given	METAL DUST AND FUME AS COBALT	Not ap	Not ap
PERCHLORIC ACID, MANGANESE(2+) SALT, HEXAHYDRATE	None given	as MANGANESE	Not ap	Not ap
BUTANE, 2,3-DIMETHYL-	None given	1000 ppm	~	~
PROPANE, 1-BROMO-	None given	Not listed	4.6 %	~
ALUMINUM(III) NITRATE, NONAHYDRATE (1:3:9)	None given	Not listed	Not ap	Not ap
1-AMINO-2,6-DIMETHYL- PIPERIDINE,	None given	Not listed	~	~
1,2-METHYLENEDIOXY-BENZENE,	None given	Not listed	~	~
1-PROPENE, 3,3-DIMETHOXY-	None given	Not listed	~	~
3-HEPTYLAMINE	None given	Not listed	~	~
1,3-BUTADIEN-1-OL, ACETATE	None given	Not listed	~	~
ISOCYANIC ACID, ALLYL ESTER	None given	Not listed	~	~
BENZENE, ALLYL-	None given	Not listed	~	~
5-AMINO-2-METHOXY-PYRIDINE,	None given	Not listed	~	~
BUTYRIC ACID, ALLYL ESTER	None given	Not listed	~	~
HEXAHYDRO-1-AMINO-1H- AZEPINE,	None given	Not listed	~	~
ALLYL SULFIDE	None given	Not listed	~	~
BENZOFURAN	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
HEXYLAMINE, 1-METHYL-	None given	Not listed	~	~
PIPERIDINE, 1-AMINO-	None given	Not listed	~	~
1-BUTENE, 3-CHLORO-	None given	Not listed	~	~
ACETIC ACID, BROMO-, BENZYL ESTER	None given	Not listed	~	~
ACETIMIDIC ACID, N-(TRIMETHYLSILYL)-, TRIMETHYLSILYL ESTER	None given	Not listed	~	~
HEXANE, 1-BROMO-	None given	Not listed	~	~
BISMUTH NITRATE, HYDRATE (1:5)	None given	Not listed	Not ap	Not ap
CALCIUM(II) NITRATE, TETRAHYDRATE (1:2:4)	None given	Not listed	Not ap	Not ap
ETHANOL, 2-BROMO-	None given	Not listed	~	~
3-BUTYN-1-OL	None given	Not listed	~	~
AMMONIUM, BENZYLTRIMETHYL-, METHOXIDE	None given	Not listed	~	~
ETHER, 2-CHLOROETHYL ETHYL	None given	Not listed	~	~
2-CHLOROETHYL ESTERISOCYANIC ACID	None given	Not listed	~	~
CAMPHOR, (1R,4R)-(+)-	None given	Not listed	~	~
OCTANE, 1-BROMO-	None given	Not listed	~	~
PHENOL, o-BROMO-	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
ACRYLONITRILE, 2-CHLORO-	None given	Not listed	~	~
tert-BUTYL ISOCYANIDE	None given	Not listed	~	~
NITROUS ACID, t-BUTYL ESTER	None given	Not listed	~	~
DIMETHYLAMINE, compd. with BORANE (1:1)	None given	Not listed	~	~
CERIUM(III) NITRATE, HEXAHYDRATE (1:3:6)	None given	Not listed	Not ap	Not ap
1-BUTANOL, 4-CHLORO-	None given	Not listed	~	~
BENZOXAZOLE	None given	Not listed	~	~
ETHANOL, 2-BROMO-, ACETATE	None given	Not listed	~	~
BENZENE, tert-BUTYL-	None given	Not listed	~	~
p-MENTHA-6,8-DIEN-2-OL, ACETATE	None given	Not listed	~	~
3-BUTYN-2-ONE	None given	Not listed	~	~
ETHER, BIS(2-BUTOXYETHYL)	None given	Not listed	~	~
1,4-BUTANEDIAMINE	None given	Not listed	~	~
CYCLOHEPTANONE	None given	Not listed	~	~
NITROXIDE, DI-tert-BUTYL	None given	Not listed	~	~
ETHER, DICHLOROMETHYL METHYL	None given	Not listed	~	~
4-DIETHYLAMINO-2-BUTANONE,	None given	Not listed	~	~
CYCLOPENTANETHIOL	None given	Not listed	~	~

APPENDIX II(a) - EXAMPLES OF IGNITABLE (RCRA WASTE D001) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH				
NAME	IDLH	ACGIH-STEL	LEL	UEL
m-CYMENE	None given	Not listed	~	~
CYCLOHEXANEMETHYLAMINE	None given	Not listed	~	~
ACETONE, DIETHYL ACETAL	None given	Not listed	~	~
BENZENE, m-DIFLUORO-	None given	Not listed	~	~
NITRIC ACID, COBALT(2+) SALT, HEXAHYDRATE	None given	Not listed	Not ap	Not ap
N,N-DIETHYL-HYDROXYLAMINE,	None given	Not listed	~	~
CHOLINE HYDROXIDE	None given	Not listed	~	~
6-OXABICYCLO(3.1.0)HEXANE	None given	Not listed	~	~
p-MENTHANE, 1,8-EPOXY-	None given	Not listed	~	~
5-DECENE, (E)-	None given	Not listed	~	~
4-CHLORO-N-METHYL- BENZENAMINE,	None given	Not listed	~	~
CROTONONITRILE	None given	Not listed	~	~
826 Records Processed				

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
SULFUR MONOCHLORIDE	10 PPM	Not listed	6.8 mm @ 20 C
BROMINE	10 PPM	ppm(2 mg/m3)	0.3175mm @ 21 C
CHROMIC ACID SOLUTION	30 mg/M3 as CHROMIUM	Confirmed human carcinogen (A1)	
PHOSPHORUS TRICHLORIDE	50 PPM	0.5 ppm	100 MM
ANTIMONY TRIBROMIDE	80 mg/m3	as ANTIMONY	1 MM AT 93.9 C
ANTIMONY TRICHLORIDE	80 mg/M3	as ANTIMONY	1 MM AT 49.2c SUBL
SULFURIC ACID	80 mg/M3	3 mg/M3	<0.001 MM
ANTIMONY PENTACHLORIDE SOLUTION	80 mg/M3	as ANTIMONY	1mm @ 22.7
ANTIMONY PENTAFLUORIDE	80 mg/M3	as ANTIMONY	
PHOSPHORUS PENTACHLORIDE	200 MG/M3	Not listed	1 mm @ 55.5 C
STANNIC CHLORIDE, HYDRATED	400 mg/M3	Not listed	
STANNOUS CHLORIDE	400 mg/M3	Not listed	
TIN TETRACHLORIDE	400 mg/M3	Not listed	
TIN(IV) CHLORIDE, PENTAHYDRATE (1:4:5)	400 mg/M3	Not listed	
ANTIMONY TRIFLUORIDE	500 mg/M3	as FLUORINE	
SODIUM BIFLUORIDE	500 mg/M3	as FLUORINE	
ZIRCONIUM SULFATE	500 mg/M3	10 mg/M3 as ZIRCONIUM	
ZIRCONIUM TETRACHLORIDE	500 mg/M3	10 mg/M3 as ZIRCONIUM	1 mm @ 190
CHROMIC FLUORIDE	500 mg/M3	as FLUORINE	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
POTASSIUM HYDROGEN FLUORIDE	500 mg/M3	as FLUORINE	
ACETIC ANHYDRIDE	1000 PPM	Not listed	4MM
ETHANOLAMINE	1000 ppm	6 ppm(15mg/m3)	6 mm @ 60C
ZINC CHLORIDE FUME	4800 mg/M3	2 mg/M3	N.A.
ACETYL BROMIDE	None given	Not listed	44.5 mm @ 2.4 C
AMMONIUM BIFLUORIDE	None given	Not listed	
AMMONIUM BISULFITE	None given	Not listed	
AMMONIUM HYDROXIDE	None given	35 ppm(27 mg/M3) as ammonia	
BENZOYL CHLORIDE	None given	Not listed	1 mm Hg @32 C
BUTYRIC ACID	None given	Not listed	
CHLOROSULFONIC ACID	None given	Not listed	1 mm Hg @? 32 C
DODECYLBENZENESULFONIC ACID	None given	Not listed	
LEAD SULFATE	None given	DUSTS AND FUMES as LEAD	
MALEIC ACID	None given	Not listed	
PROPIONIC ANHYDRIDE	None given	Not listed	1 MM @ 20.6 C
SODIUM HYDROSULFIDE	None given	Not listed	
SODIUM HYPOCHLORITE	None given	Not listed	
SODIUM METHYLATE	None given	Not listed	
SULFURCUS ACID SOLUTION	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
BENZENE PHOSPHONIC THIODICHLORIDE	None given	Not listed	
CALCIUM OXIDE	None given	Not listed	0 MM
SULFURYL CHLORIDE	None given	Not listed	100 MM @ 17.8 C
ACETIC ACID SOLUTION	None given	15 ppm(37 mg/M3)	
ACETYL IODIDE	None given	Not listed	3.48mm Hg @ 28.2 C
ACID BUTYL PHOSPHATE	None given	Not listed	
ALKANE SULFONIC ACID	None given	Not listed	
ALLYL CHLOROFORMATE	None given	Not listed	
ALUMINUM BROMIDE	None given	METAL DUST	
ALUMINUM PHOSPHATE SOLUTION	None given	METAL DUST	
AMINOETHOXYETHANOL	None given	Not listed	
AMINOETHYLPIPERAZINE	None given	Not listed	
AMMONIA SOLUTION WITH LESS THAN 44% AMMONIA	None given	Not listed	
AMMONIUM HYDROGEN FLUORIDE SOLUTION	None given	Not listed	
AMMONIUM HYDROGEN SULFATE	None given	Not listed	
AMMONIUM POLYSULFIDE SOLUTION	None given	Not listed	
AMYL ACID PHOSPHATE	None given	Not listed	
AMYLTRICHLOROSILANE	None given	Not listed	
ANISOYL CHLORIDE	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
BATTERY FLUID, ACID (ELECTROLYTE)	None given	Not listed	
BENZENE PHOSPHOROUS DICHLORIDE	None given	Not listed	
BENZENE PHOSPHOROUS THIOCHLORIDE	None given	Not listed	
BENZYL BROMIDE	None given	Not listed	
BENZYL CHLOROFORMATE	None given	Not listed	
BENZYL DIMETHYLAMINE	None given	Not listed	
BORON TRIBROMIDE	None given	Not listed	40mm @ 14 C
BORON TRICHLORIDE	None given	Not listed	760 mm @ 12.7C
BORON TRIFLUORIDE ACETIC ACID COMPLEX	None given	Not listed	
BORON TRIFLUORIDE DIHYDRATE	None given	Not listed	
BROMOACETIC ACID	None given	Not listed	
BROMOACETYL BROMIDE	None given	Not listed	
GALLIUM, ELEMENTAL	None given	Not listed	
BUTYL ACID PHOSPHATE	None given	Not listed	
BUTYLCHLOROFORMATE	None given	Not listed	
BUTYL TRICHLOROSILANE	None given	Not listed	
ISOPHORONE DIAMINE	None given	Not listed	
BUTYRIC ANHYDRIDE	None given	Not listed	
CALCIUM HYDROGEN SULFITE SOLUTION	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
CESIUM HYDROXIDE SOLUTION	None given	Not listed	
CHLOROACETIC ACID	None given	Not listed	1mm Hg @ 43 C
CLOROACETYL CHLORIDE	None given	0.15 ppm(0.69 mg/M3) Skin	
CHLOROMETHYLCHLOROFORMATE	None given	Not listed	
CHLOROPHENYL TRICHLOROSILANE	None given	Not listed	
CHLOROPLATINIC ACID	None given	as PLATINUM	
CHLOROPROPIONIC ACID	None given	Not listed	
CHLOROSULPHONIC ACID AND SULFUR TRIOXIDE MIXTURE	None given	Not listed	
CHROMIC FLUORIDE SOLUTION	None given	as CHROMIUM	
CHROMIUM OXYCHLORIDE	None given	as CHROMIUM	Confirmed human carcinogen (A1)
CHROMOSULFURIC ACID	None given	Not listed	
COPPER CHLORIDE	None given	as COPPER	
CROTONIC ACID	None given	Not listed	
CUPRIETHYLENEDIAMINE, SOLUTION	None given	Not listed	
CYANURIC CHLORIDE	None given	Not listed	
CYCLOBUTYLCHLOROFORMATE	None given	Not listed	
CYCLOHEXENYL TRICHLOROSILANE	None given	Not listed	
CYCLOHEXYL TRICHLOROSILANE	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
DIBENZYLDICHLOROSILANE	None given	Not listed	
DICHLOROACETIC ACID	None given	Not listed	1 MM @ 40 C
DICHLOROACETYL CHLORIDE	None given	Not listed	
DICYCLOHEXYLAMINE	None given	Not listed	
DIETHYLENETRIAMINE	None given	SKIN	0.22 mm @20 C
DI(2-ETHYLHEXYL)PHOSPHORIC ACID	None given	Not listed	
DIETHYLTHIOPHOSPHORYL CHLORIDE	None given	Not listed	
DIFLUOROPHOSPHORIC ACID, ANHYDROUS	None given	Not listed	
DIMETHYL PHOSPHOROCHLORODITHIOATE	None given	Not listed	
DIMETHYLCYCLOHEXYL AMINE	None given	Not listed	
PHOSPHORUS ACID	None given	Not listed	
DIMETHYL THIOPHOSPHORYL CHLORIDE	None given	Not listed	
DIOCTYL ACID PHOSPHATE	None given	Not listed	
DIPHENYL DICHLOROSILANE	None given	Not listed	
DIPHENYLMETHYL BROMIDE	None given	Not listed	
DIPROPYLENE TRIAMINE	None given	Not listed	
DODECYL TRICHLOROSILANE	None given	Not listed	
DYE AND DYE INTERMEDIATE, LIQUID	None given	Not listed	
ETHANE, LIQUID	None given	Not listed	38.5 atm @ 20 C

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
ETHYL CHLOROTHIOFORMATE	None given	Not listed	
ETHYLHEXYLAMINE	None given	Not listed	1.2 MM @ 20 C
ETHYL HEXYLCHLOROFORMATE	None given	Not listed	
ETHYL PHENYL DICHLOROSILANE	None given	Not listed	
ETHYL PHOSPHONOTHIOIC DICHLORIDE	None given	Not listed	
ETHYL PHOSPHORUS DICHLORIDATE	None given	Not listed	
ETHYL SULFURIC ACID	None given	Not listed	
FERRIC CHLORIDE SOLUTION	None given	as IRON	
FERROUS CHLORIDE SOLUTION	None given	as IRON	
FLUOBORIC ACID	None given	Not listed	
FLUOROSULPHONIC ACID	None given	Not listed	
FUMARYL CHLORIDE	None given	Not listed	
HEXAFLUOROPHOSPHORIC ACID	None given	Not listed	
HEXAMETHYLENE DIAMINE, SOLUTION	None given	Not listed	
HEXANOIC ACID	None given	Not listed	0.18mm @ 20 C
HEXYL TRICHLOROSILANE	None given	Not listed	
HYDRIODIC ACID	None given	Not listed	
HYDROCHLORIC ACID SOLUTION	None given	Not listed	
HYDROFLUOSILICIC ACID	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
HYDROGEN BROMIDE SOLUTION	None given	CEILING	
HYDROGEN CHLORIDE	None given	Not listed	
HYDROGEN IODIDE SOLUTION	None given	Not listed	
HYDROXYLAMINE SULFATE	None given	Not listed	
HYPOCHLORITE SOLUTION WITH MORE THAN 5% AVAILABLE CHLORINE	None given	Not listed	
IODINE MONOCHLORIDE	None given	Not listed	
IRON CHLORIDE SOLUTION	None given	as IRON	
ISOPENTANOIC ACID	None given	Not listed	
ISOPHORONEDIAMINE	None given	Not listed	
ISOPROPYL ACID PHOSPHATE	None given	Not listed	
LITHIUM HYDROXIDE MONOHYDRATE	None given	Not listed	
LITHIUM HYDROXIDE SOLUTION	None given	Not listed	
MAGNESIUM BISULFITE SOLUTION	None given	Not listed	
MEMTETRAHYDROPHTHALIC ANHYDRIDE	None given	Not listed	0.01mm @ 20 C
METHACRYLIC ACID	None given	Not listed	1 mm @ 25.5
METHYL PHOSPHONOTHIOIC DICHLORIDE	None given	Not listed	
MOLYBDENUM PENTACHLORIDE	None given	as MOLYBDENUM	
MONOFLUOROPHOSPHORIC ACID	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
NITRIC ACID, OTHER THAN FUMING, WITH MORE THAN 40% ACID	None given	Not listed	
NITRIC ACID, OTHER THAN FUMING, WITH NOT MORE THAN 40% ACID	None given	Not listed	
NITROBENZENESULFONIC ACID	None given	Not listed	
NITROHYDROCHLORIC ACID	None given	Not listed	
NITROSYL CHLORIDE	None given	Not listed	76 MM @ 50 C
NITROSYLSULFURIC ACID	None given	Not listed	
NONYL TRICHLOROSILANE	None given	Not listed	
OCTADECYL TRICHLOROSILANE	None given	Not listed	
OCTYL TRICHLOROSILANE	None given	Not listed	
OLEUM	None given	Not listed	
PENTANOIC ACID	None given	Not listed	
PENTOL	None given	Not listed	
PERCHLORIC ACID, MORE THAN 50% AND NOT MORE THAN 72% ACID	None given	Not listed	
PHENOLSULPHNIC ACID	None given	Not listed	
PHENYLCHLOROFORMATE	None given	Not listed	
TRICHLOROPHENYLSILANE	None given	Not listed	
PHOSPHORIC ACID SOLUTION	None given	Not listed	0.0285mm @ 20

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
PHOSPHORUS OXYBROMIDE	None given	Not listed	
PHOSPHORUS OXYCHLORIDE	None given	ppm(3mg/m3)	0.540 mm @ 27.3C
PHOSPHORUS PENTABROMIDE	None given	Not listed	
PHOSPHORUS PENTOXIDE	None given	Not listed	
PHOSPHORUS TRIBROMIDE	None given	Not listed	
PHOSPHORUS TRIOXIDE	None given	Not listed	5.00 mmHf @39.70 C
CHLOROPHENYLTRICHLOROSILANE	None given	Not listed	
PIPERAZINE	None given	Not listed	
POTASSIUM BISULFITE SOLUTION	None given	Not listed	
POTASSIUM HYDROGEN SULFATE	None given	Not listed	
POTASSIUM HYDROXIDE SOLUTION	None given	CEILING	
POTASSIUM HYPOCHLORITE SOLUTION	None given	Not listed	
POTASSIUM OXIDE	None given	Not listed	
POTASSIUM SULFIDE, HYDRATED	None given	Not listed	
PROPYLENEDIAMINE	None given	Not listed	21.2mm Hg @ -16.22 C
PROPYL TRICHLOROSILANE	None given	Not listed	
RUBIDIUM HYDROXIDE	None given	Not listed	
SELENIC ACID	None given	as SELENIUM	
SILICON TETRACHLORIDE	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
SILICON TETRAFLUORIDE	None given	Not listed	
SODA LIME	None given	Not listed	
SODIUM ALUMINATE SOLUTION	None given	METAL DUST	
SODIUM BISULFATE	None given	Not listed	
SODIUM CHLORITE SOLUTION WITH MORE THAN 5% AVAILABLE CHLORINE	None given	Not listed	
SODIUM HYDROGEN SULFATE (SOLUTION)	None given	Not listed	
SODIUM HYDROGEN SULFITE SOLUTION	None given	Not listed	
SODIUM HYDROXIDE SOLUTION	None given	Not listed	1mm @ 739
SODIUM MONOXIDE	None given	Not listed	
SODIUM PHENOLATE	None given	Not listed	
SODIUM SULFIDE, HYDRATED	None given	Not listed	
SULFURIC ACID, WITH MORE THAN 51% BUT NOT MORE THAN 95% ACID	None given	Not listed	
SULFURIC ACID, WITH NOT MORE THAN 51% ACID	None given	Not listed	
SULFUR TRIOXIDE	None given	Not listed	
TRIMETHYLCYCLOHEXYLAMINE	None given	Not listed	
TRIMETHYLHEXAMETHYLENE DIAMINE	None given	Not listed	
VALERIC ACID, (N-PENTANOIC ACID)	None given	Not listed	
VALERYL CHLORIDE	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
VANADIUM OXYTRICHLORIDE	None given	Not listed	
VANADIUM TETRACHLORIDE	None given	Not listed	
VANADIUM TRICHLORIDE	None given	Not listed	
TETRAETHYLENEPENTAMINE	None given	Not listed	
TETRAMETHYL AMMONIUM HYDROXICE	None given	Not listed	
THIOGLYCOLIC ACID	None given	Not listed	
THIONYL CHLORIDE	None given	Not listed	
THIOPHOSPHORYL CHLORIDE	None given	Not listed	
TITANIUM SULFATE SOLUTION	None given	Not listed	
TITANIUM TETRACHLORIDE	None given	Not listed	
TITANIUM TRICHLORIDE	None given	Not listed	
TOLUENE SULFONIC ACID, LIQUID	None given	Not listed	
TRIBUTYLAMINE	None given	Not listed	
TRICHLOROACETIC ACID	None given	Not listed	
TRICHLOROACETYL CHLORIDE	None given	Not listed	
TRIETHYLENE TETRAMINE	None given	Not listed	
TRIFLUOROACETIC ACID	None given	Not listed	
SODIUM METABISULFITE	None given	Not listed	
PHENYL PHOSPHORUS THIODICHLORIDE	None given	Not listed	

APPENDIX II(b) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
PHENYLACETYL CHLORIDE	None given	Not listed	
ALUMINUM CHLORIDE	None given	METAL DUST	
CHLOROPIVALOYL CHLORIDE	None given	Not listed	
SULFURIC ACID, MONOAMMONIUM SALT	None given	Not listed	
PIPERAZINE, 1,4-BIS(3-AMINOPROPYL)-	None given	Not listed	
PROPIONIC ACID, CHLORO-	None given	Not listed	
SULFURIC ACID, CHROMIUM SALT	None given	Not listed	
SULFAMIC ACID	None given	Not listed	
SILANE, DIBENZYLDICHLORO-	None given	Not listed	
PHOSPHOROCHLORIDOTHIOIC ACID, O,O-DIETHYL ESTER	None given	Not listed	
BORATE(1-), TETRAFLUORO-, HYDROGEN	None given	Not listed	
POTASSIUM PYROSULFITE	None given	Not listed	
PROPIONIC ACID	None given	15 ppm(45 mg/M3)	
SULFUR DICHLORIDE	None given	Not listed	
PYROSULFURYL CHLORIDE	None given	Not listed	
PHOSPHORIC ACID, DIISOOCTYL ESTER	None given	Not listed	
CYCLOHEXYLAMINE, TRIMETHYL-	None given	Not listed	
COPPER(I) CHLORIDE	None given	as COPPER	1 mm @ 546 C
DICHLOROMETHYLPHENYLSILANE	None given	Not listed	

APPENDIX II(5) - EXAMPLES OF CORROSIVE (RCRA WASTE D002) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
SELENIUM OXYCHLORIDE	None given	as SELENIUM	1 @ 34.8c
TRICHLORO(DICHLOROPHENYL) SILANE	None given	Not listed	
METHYL PHOSPHONIC DICHLORIDE	None given	Not listed	
ANISOYL CHLORIDE	None given	Not listed	

APPENDIX II(c) - EXAMPLES OF REACTIVE (RCRA WASTE D003) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
LITHIUM HYDRIDE	55 mg/M3	Not listed	0 mm @ 20 C
PICRIC ACID	100 mg/M3	0.3 mg/m3 skin	<<1 mm
STANNIC PHOSPHIDE	400 mg/M3	Not listed	
ZIRCONIUM PICRAMATE, wet	500 mg/M3	10 mg/M3 as ZIRCONIUM	
CALCIUM CARBIDE	None given	Not listed	
HYDRAZOIC ACID	None given	Not listed	
DIAZINON	None given	Not listed	
ALUMINUM	None given	Not listed	1mm @ 1284C
ALUMINUM CARBIDE	None given	METAL DUST	
ALUMINUM FERROSILICON	None given	Not listed	
ALUMINUM HYDRIDE	None given	METAL DUST	
ALUMINUM SILICON	None given	as ALUMINUM	
AMMONIUM NITRATE, fuel Mixtures	None given	Not listed	
CALCIUM, metal & alloys	None given	Not listed	10mm @ 983C
CALCIUM HYDRIDE	None given	Not listed	
CALCIUM MANGANESE SILICON	None given	as MANGANESE	
CALCIUM PHOSPHIDE	None given	Not listed	
CALCIUM SILICIDE	None given	Not listed	
CESIUM METAL	None given	Not listed	1MM @ 279 C

APPENDIX II(c) - EXAMPLES OF REACTIVE (RCRA WASTE D003) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	**IDLH**	**ACGIH STEL**	**VAPOR PRESSURE**
P-CHLOROBENZOYL PEROXIDE	None given	Not listed	
DIETHYLMAGNESIUM	None given	Not listed	
DI(2-METHYLBENZOYL) PEROXIDE	None given	Not listed	
DIPICRYL SULFIDE, WET with not less than 10% Water	None given	Not listed	
FERROSILICON	None given	Not listed	
LITHIUM ACETYLIDE ETHYLENEDIAMINE COMPLEX	None given	Not listed	
LITHIUM AMIDE	None given	Not listed	
LITHIUM BOROHYDRIDE	None given	Not listed	
LITHIUM FERROSILICON	None given	Not listed	
LITHIUM	None given	Not listed	1mm @ 723
LITHIUM NITRIDE	None given	Not listed	
LITHIUM SILICON	None given	Not listed	
MAGNESIUM	None given	Not listed	1mm @ 621C
MAGNESIUM ALUMINUM PHOSPHIDE	None given	METAL DUST	
MAGNESIUM HYDRIDE	None given	Not listed	
MAGNESIUM PHOSPHIDE	None given	Not listed	
MAGNESIUM SILICIDE	None given	Not listed	
MANEB AND COMPOUNDS WITH 60% OR MORE MANEB	None given	as MANGANESE	

APPENDIX II(c) - EXAMPLES OF REACTIVE (RCRA WASTE D003) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
METHYL ETHYL KETONE	None given	Not listed	
PEROXIDE, WITH NOT MORE THAN 50% PEROXIDE			
NITROGUANIDINE, WET with not less than 20% water	None given	Not listed	
POTASSIUM	None given	Not listed	
POTASSIUM BOROHYDRIDE	None given	Not listed	
POTASSIUM PHOSPHIDE	None given	Not listed	
RUBIDIUM	None given	Not listed	
SODIUM ALUMINUM HYDRIDE	None given	METAL DUST	
SODIUM AMALGAM	None given	Not listed	
SODIUM AMIDE	None given	Not listed	
SODIUM BOROHYDRIDE	None given	Not listed	
SODIUM HYDRIDE	None given	Not listed	
SODIUM	None given	Not listed	
SODIUM PHOSPHIDE	None given	Not listed	
SODIUM PICRAMATE	None given	Not listed	
STRONTIUM PHOSPHIDE	None given	Not listed	
TRINITROPHENOL, WET	None given	Not listed	
TRINITROTOLUENE	None given	Not listed	(185 F): 0.05 MM
ZINC METAL, POWDER OR DUST	None given	Not listed	

APPENDIX II(c) - EXAMPLES OF REACTIVE (RCRA WASTE D003) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
TETRYL	None given	Not listed	< 1 mm @ 25 C
CALCIUM CYANAMIDE	None given	Not listed	
CYCLONITE	None given	3 mg/M3 SKIN	
HEXANITRODIPHENYLAMINE	None given	Not listed	
SODIUM DINITRO-O-CRESOLATE	None given	Not listed	
BORATE(1-), TETRAHYDRO-, ALUMINUM	None given	METAL DUST	
MALEIC MONOPEROXY ACID, 1-tert-BUTYL ESTER	None given	Not listed	
CALCIUM HYDRIDE	None given	Not listed	
1,3,5,7-TETRAZOCINE, OCTAHYDRO-1,3,5,7-TETRANITRO-	None given	Not listed	
DECANOYL PEROXIDE	None given	Not listed	
PEROXYDICARBONIC ACID, DIBENZYL ESTER	None given	Not listed	
DIETHYLENE GLYCOL, DINITRATE	None given	Not listed	
RESORCINOL, DINITRO-	None given	Not listed	
BENZENE, DINITROSO-	None given	Not listed	
PICRYL SULFIDE	None given	Not listed	
LEAD TRINITRORESORCINATE	None given	DUSTS AND FUMES as LEAD	
MAGNESIUM HYDRIDE	None given	Not listed	
MAGNESIUM SILICIDE	None given	Not listed	
MANNITOL, HEXANITRATE	None given	Not listed	

APPENDIX II(c) - EXAMPLES OF REACTIVE (RCRA WASTE D003) MATERIALS ACCEPTED AT HERITAGE LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
NITROSTARCH	None given	Not listed	
PENTAERYTHRITOL, TETRANITRATE, containing at least 25% water/at least 15% phlegmatizer (DOT)	None given	Not listed	
ANILINE, TETRANITRO-	None given	Not listed	
1H-TETRAZOLE-1-ACETIC ACID	None given	Not listed	
ANILINE, TRINITRO-	None given	Not listed	
ANISOLE, 2,4,6-TRINITRO-	None given	Not listed	
BENZENESULFONIC ACID, 2,4,6-TRINITRO-	None given	Not listed	
CHLOROTRINITROBENZENE	None given	Not listed	
FLUOREN-9-ONE, TRINITRO-	None given	Not listed	
NAPHTHALENE, TRINITRO-	None given	Not listed	
UREA NITRATE	None given	Not listed	
1H-BENZOTRIAZOLE, 5-NITRO-	None given	Not listed	
BENZOIC ACID, TRINITRO-	None given	Not listed	
LEAD AZIDE	None given	DUSTS AND FUMES as LEAD	
RESORCINOL, 2,4,6-TRINITRO-	None given	Not listed	
89 Records Processed			

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
OSMIUM TETROXIDE	1 mg/m^3	0.0006ppm(0.006 mg/m^3)	7 mm
PHOSGENE	2 ppm	Not listed	N.A.
HYDROGEN SELENIDE	2 ppm	as SELENIUM	>1 ATM
STRYCHNINE	3 mg/m^3	Not listed	ABOUT 0 mm
ACROLEIN	5 ppm	0.3 ppm (0.8 mg/m^3)	210 mm @ 20 C
SODIUM FLUOROACETATE	5 mg/m^3	0.15 mg/m^3 SKIN	0 mm @ 20 C
TETRANITROMETHANE	5 ppm	Not listed	8.4 mm
BENZYL CHLORIDE	10 ppm	Not listed	.00171
BERYLLIUM	10 mg/m^3	as BERYLLIUM	Suspected human carcinogen (A2)
DIMETHYL SULFATE	10 ppm	SKIN Suspected human carcinogen	0.5 mm @ 20C (A2)
PERCHLOROMETHYLMERCAPTAN	10 ppm	Not listed	65 mm
TETRAETHYLPYROPHOSPHATE (TEPP)	10 mg/m^3	Not listed	0.00047 mm @ 30
TOLUENEDIISOCYANATE	10 ppm	0.02 ppm(0.14 mg/m^3)	ABOUT 0.04 mm
PARATHION	20 mg/m^3	Not listed	.003mm @ 24 C
THALLIC OXIDE	20 mg/m^3	Not listed	
THALLIUM (I) ACETATE	20 mg/m^3	as THALLIUM - SKIN	
THALLOUS CHLORIDE	20 mg/m^3	as THALLIUM - SKIN	
THALLIUM (I) NITRATE	20 mg/m^3	as THALLIUM - SKIN	

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
THALLIUM (I) SELENITE	20 mg/m^3	as SELENIUM	
THALLOUS SULFATE	20 mg/m^3	Not listed	
THALLOUS CARBONATE	20 mg/m^3	Not listed	
METHYL ISOCYANATE	20 ppm SKIN		348 mm @ 20 C
CALCIUM CHROMATE	30 mg/m^3 as Chromium	Suspected human carcinogen (A2)	
FORMALDEHYDE	30 ppm	Not listed	.95 mm @ -109.3 C
FORMIC ACID	30 ppm	10 ppm(19 mg/m^3)	40 mm Hg @ 24 C
CHROMIUM (VI) COMPOUNDS, AS CR - CERTAIN WATER INSOLUBLE	30 mg/m^3 as CHROMIUM	Confirmed human carcinogen (A1)	
NICOTINE	35 mg/m^3	Not listed	0.0425 mm
TETRAETHYL LEAD	40 mg/m^3	Not listed	0.2 mm @ 20 C
BARIUM CYANIDE	50 mg/m^3	Not listed	
CADMIUM	50 mg/m^3 as CADMIUM		
CYANIDES(SOLUBLE SALTS AND COMPLEXES),N.O.S.	50 mg/m^3 as CYANIDE - SKIN		
NITROGEN DIOXIDE	50 ppm	5 ppm(10 mg/m^3)	720 mm
POTASSIUM CYANIDE	50 mg/m^3 as CYANIDE - SKIN		ABOUT 0 mm
SODIUM CYANIDE	50 mg/m^3 as CYANIDE - SKIN		ABOUT 0 mm
VANADIUM PENTOXIDE	70 mg/m^3	Respirable dust and fume	ABOUT 0 mm
p-BENZOQUINONE	75 ppm	Not listed	0.1 mm

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
HYDRAZINE	80 ppm	SKIN Suspected human carcinogen(A2)	10 mm
ALDRIN	100 mg/m^3	Not listed	.000075 mm Hg @ 20C
ANILINE	100 ppm	Not listed	1mm @ 34.8 C
ARSENIC ACID	100 mg/m^3 as ARSENIC		
ARSENIC PENTOXIDE	100 mg/m^3	Not listed	
ARSENOUS OXIDE	100 mg/m^3	Not listed	
ALPHA-NAPHTHYLTHIOUREA (ANTU)	100 mg/m^3	Not listed	about 0 mm @ 25 C
CHLOROACETALDEHYDE	100 ppm	CEILING VALUE	100 mm @ 20 C
NITRIC OXIDE	100 ppm	Not listed	26,000 mm @ 20 C
o-TOLUIDINE	100 ppm	SKIN Suspected human carcinogen(A2)	<1 mm @ 440
ALLYL ALCOHOL	150 ppm	4 ppm(10mg/m^3) SKIN	23.8 mm @ 25C
PENTACHLOROPHENOL	150 mg/m^3	Not listed	40 mm @ 211 C
1,1,2,2-TETRACHLOROETHANE	150 ppm	Not listed	8 mm
CAMPHECHLOR	200 mg/m^3	1 mg/m^3 SKIN	0.2 TO 0.4 mm
NITROBENZENE	200 ppm	Not listed	1 mm @ 44.4 C
M-DINITROBENZENE	200 mg/m^3	Not listed	
CRESOL	250 ppm SKIN		0.25/0.15/0.11mm
EPICHLOROHYDRIN	250 ppm	Not listed	10mm @ 16.6 C

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
FURFURAL	250 ppm	Not listed	1mm @ 20 C
PHENOL	250 ppm	Not listed	0.35 mm @ 25 C
DICHLOROETHYL ETHER	250 ppm	10 ppm SKIN	0.7mm @ 20 C
CRESOL, o-	250 ppm	Not listed	1mm @ 38.2 C
m-CRESYLIC ACID	250 ppm SKIN		
P-CRESYLIC ACID	250 ppm SKIN	1mm @ 53.0	
CARBON TETRACHLORIDE	300 ppm	Not listed	100mm @ 23 C
HEXACHLOROETHANE	300 ppm	Not listed	1 mm @ 32.7 C
P-NITROANILINE	300 mg/m^3	Not listed	<< 1mm @ 142.4 C
HYDROGEN SULFIDE	300 ppm	15 ppm	20 ATM
ETHYLENE DIBROMIDE	400 ppm	SKIN Suspected human carcinogen (A2)	17.4 mm @ 30 C
DIELDRIN	450 mg/m^3	Not listed	1.8X10-7
ACRYLONITRILE	500 ppm	Not listed	83mm
CARBON DISULFIDE	500 ppm	Not listed	360 mm @ 25 C
CHLORDANE	500 mg/m^3	2 mg/m^3 SKIN	0.00001 @ 25 c
2,4-D ACID	500 mg/m^3	Not listed	0.4 mm Hg @ 160 C
NAPHTHALENE	500 ppm	15ppm(75 mg/m^3)	1mm @ 52.6 C
1,1,2-TRICHLOROETHANE	500 ppm	Not listed	16.7 mmHg @ 20 C
PROPYLENEIMINE	500 ppm	Not listed	112 mm @ 20 C

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
ETHYLENE, TETRACHLORO-	500 ppm	200 ppm	15.8mm @ 22C
HEPTACHLOR	700 mg/m^3	Not listed	0.003 mm @ 25 C
METHYL IODIDE	800 ppm	SKIN Suspected human carcinogen (A2)	400mm @ 25.3 C
CHLOROFORM	1000ppm	Not listed	160 mm
ETHYLENE DICHLORIDE	1000 ppm	15ppm(60 mg/m^3)	44mm @ 10
LINDANE	1000 mg/m^3	Not listed	9.4 E(-6) mmHg @ 20 C
TRICHLOROETHYLENE	1000 ppm	200 ppm	58 mm
METHYL CHLOROFORM	1000 ppm	450 ppm(2,450 mg/m^3)	100 mm @ 20.0
o-DICHLOROBENZENE	1000 ppm	50 ppm(301 mg/m^3)	1mm @ 20 C
p-DICHLOROBENZENE	1000 ppm	110 ppm	0.4mm @ 25 C
P-XYLENE	1000 ppm	150 ppm(655 mg/m^3)	10mm @ 27.3 C
DIMETHYLAMINE	2000 ppm	15 ppm(27.6 mg/m^3)	1.7 ATM
ENDRIN	2000 mg/m^3	Not listed	0.0000002 AT 25 C
ETHYL BENZENE	2000 ppm	125 ppm(545 mg/m^3)	10mm @ 25.9 C
TOLUENE	2000 ppm	Not listed	36.7 mm @ 30 C
DIOXANE	2000 ppm	Not listed	29 mm
ETHYL ACRYLATE	2000 ppm	15 ppm(61mg/m^3) Suspected human carcinogen	29.3 mm Hg @ 20 C
2-NITROPROPANE	2300 ppm	Not listed	12.9mm @ 20 C

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
CHLOROBENZENE	2400 ppm	Not listed	0.0156
BENZENE	3000 ppm	Suspected human carcinogen (A2)	75 mm @ 20 C
2-BUTANONE	3000 ppm	300 ppm	71.2 mm Hg @ 20C
PYRIDINE	3600 ppm	Not listed	10 mm @ 13.2 C
1,1-DICHLOROETHANE	4000 ppm	Not listed	230 mm @ 25 C
METHYL METHACRYLATE	4000 ppm	Not listed	40mm @ 25.5 C
ACETONITRILE 1,1,2-TRICHLORO-	4000 ppm	60 ppm	100 mm @ 27
1,2,2-TRIFLUOROETHANE	4500 ppm	1250 ppm	284 mm
CYCLOHEXANONE	5000 ppm	SKIN	10mm @39.7 C
DICHLOROMETHANE	5000 ppm	Not listed	440mm @ 25 C
2-ETHOXYETHANOL	6000 ppm	Not listed	3.8 mm Hg @ 20 C
CUMENE	8000 ppm	Not listed	3.2mm @ 20 C
1-BUTANOL	8000 ppm	Not listed	4.2mm
ISOBUTANOL	8000 ppm	Not listed	10 mm @ 21.7 C
DIMETHYL PHTHALATE	9300 mg/m^3	Not listed	(212 F): 1 mm
CYCLOHEXANE	10000 ppm	Not listed	95mm
ETHYL ACETATE	10000 ppm	Not listed	100mm @ 27 C
ACETALDEHYDE	10000 ppm	Not listed	760.0 mm @ 20.20
PHTHALIC ANHYDRIDE	10000 ppm	Not listed	<0.05 mm

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
FLUOROTRICHLOROMETHANE	10000 ppm	Not listed	797 mm Hg @ 25 C
ETHER	19000 ppm	500 ppm(1,500mg/m^3)	442 mm Hg @ 20 C
ACETONE	20000 ppm	1000 ppm(2375 mg/m^3)	196 mm @ 21 C
TETRAHYDROFURAN	20000 ppm	250 ppm(735 mg/m^3)	145 mm
METHANOL	25000 ppm	250 ppm	92 mm @ 20 C
ACENAPHTHYLENE	None given	Not listed	10mm @131.2 F
ACETONE CYANOHYDRIN	None given	Not listed	0.8 mm @ 20 C
ACETYL CHLORIDE	None given	Not listed	
BENZ[A]ANTHRACENE	None given	Not listed	
BENZIDINE	None given	Not listed	
BENZO[A]PYRENE	None given	Suspected human carcinogen (A2)	
BIS(2-CHLOROETHOXY)METHANE	None given	Not listed	
4-BROMOPHENYL PHENYL ETHER	None given	Not listed	
CALCIUM CYANIDE	None given	Not listed	
p-CHLORO-m-CRESOL	None given	Not listed	
2-CHLORONAPHTHALENE	None given	Not listed	
2-CHLOROPHENOL	None given	Not listed	1 mm Hg @ 12.1 C
CHRYSENE	None given	Suspected human carcinogen (A2)	

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
COPPER CYANIDE	None given	as COPPER	
CYANOGEN CHLORIDE	None given	Not listed	
DDT	None given	Not listed	LOW
DIBENZO[A,I]PYRENE	None given	Not listed	
DIBUTYL PHTHALATE	None given	Not listed	1.1 mm @ 150 C
1,1-DICHLOROETHYLENE	None given	20 ppm	50.95mm @ -20.36
2,4-DICHLOROPHENOL	None given	Not listed	
2,6-DICHLOROPHENOL	None given	Not listed	1mm @ 59.5 C
DIETHYL PHTHALATE	None given	10 mg/m^3	
7,12-DIMETHYLBENZ[A]ANTHRACENE	None given	Not listed	
2,4-DIMETHYLPHENOL	None given	Not listed	98.97 mm @144.38 C
2,4-DINITROTOLUENE	None given	5 mg/m^3 SKIN	1 mm
2,6-DINITROTOLUENE	None given	Not listed	
DI-N-OCTYL PHTHALATE	None given	Not listed	
DISULFOTON	None given	Not listed	
ENDOSULFAN(ALL ISOMERS)	None given	Not listed	0.009 @ 20 C
HEXACHLOROBENZENE	None given	Not listed	1 mm @ 114.4 C
HEXACHLOROBUTADIENE	None given	SKIN Suspected human carcinogen	2 mm Hg @ 100 C
HEXACHLOROCYCLOPENTADIENE	None given	Not listed	0.08 mm @ 25 C

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
INDENO[1,2,3-cd]PYRENE	None given	Not listed	
LEAD ACETATE	None given	DUSTS AND FUMES as LEAD	
MALEIC ANHYDRIDE	None given	Not listed	1 mm Hg @ 44 C
METHOXYCHLOR	None given	Not listed	VERY LOW
PARATHION-METHYL	None given	Not listed	
NICKEL	None given	as NICKEL	
NICKEL CYANIDE	None given	as NICKEL	
4-NITROPHENOL	None given	Not listed	2.2mm @ 146 C
NITROSODIMETHYLAMINE	None given	SKIN Suspected human carcinogen (A2)	
PENTACHLOROBENZENE	None given	Not listed	
RESORCINOL	None given	20 ppm(90 mg/m^3)	1mm @ 108.4
POTASSIUM SILVER CYANIDE	None given	as SILVER	
SELENOUS ACID	None given	as SELENIUM	
SILVER CYANIDE	None given	Not listed	
SILVER NITRATE	None given	as SILVER	
TETRACHLOROBENZENE	None given	Not listed	
1,1,1,2-TETRACHLOROETHANE	None given	Not listed	5mm @ 20 C
TETRACHLORODIPHENYLETHANE (TDE)	None given	Not listed	
TRICHLOROETHANE (ALL ISOMERS)	None given	Not listed	

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
2,4,5-TRICHLOROPHENOL	None given	Not listed	
2,4,6-TRICHLOROPHENOL	None given	Not listed	
VINYL CHLORIDE	None given	Not listed	2600 mm @ 25
ZINC CYANIDE	None given	Not listed	
ZINC PHOSPHIDE	None given	Not listed	
ZINC PHOSPHIDE	None given	Not listed	
ACETOPHENONE	None given	Not listed	
ACETOPHENONE	None given	Not listed	
ACRYLAMIDE	None given	Not listed	0.007 mm @ 20 C
ACRYLIC ACID	None given	SKIN	10mm @ 39.9 C
AMITROLE	None given	Not listed	
AURAMINE	None given	Not listed	
AZASERINE	None given	Not listed	
BENZALCHLORIDE	None given	Not listed	1 mm @ 35.4 C
ANILINE,N,N-DIMETHYL-4-PHENLKAZO-	None given	Not listed	
BENZENESULFONYL CHLORIDE	None given	Not listed	
1,3,5-TRINITROBENZENE	None given	Not listed	180 mm
PENTACHLORONITROBENZENE	None given	Not listed	0.013mm Hg @ 25 C
BENZO[J,K]FLUORENE	None given	Not listed	0.01 mm @20 C
BENZOTRICHLORIDE	None given	Not listed	1 mm @ 45.8 C

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
DIEPOXYBUTANE 1,2-BENZISOTHIAZOLIN-3-	None given	Not listed	
ONE,1,1-DIOXIDE, AND SALTS	None given	Not listed	
CYANOGEN BROMIDE	None given	Not listed	100mm @ 22.6 C
BROMOFORM	None given	SKIN	0.00710298
METHYL ETHYL KETONE PEROXIDE	None given	Not listed	
CACODYLIC ACID	None given	Not listed	
ETHYL CARBAMATE	None given	Not listed	10mm @ 77.8 C
CREOSOTE	None given	Not listed	80 mm Hg @ 100
CHLORAMBUCIL	None given	Not listed	
2-NAPHTHYLAMINE	None given	Not listed	
AMMONIUM METAVANADATE	None given	Not listed	
AMMONIUM PICRATE	None given	Not listed	
4-CHLORO-O-TOLUIDINE HYDROCHLORIDE	None given	Not listed	
CUMENE HYDROPEROXIDE	None given	Not listed	
CYANOGEN	None given	Not listed	
DICHLOROISOPROPYL ETHER	None given	Not listed	0.10 mm @20 C
ETHYL METHACRYLATE	None given	Not listed	
FURAN	None given	Not listed	493 mm Hg @ 20 C
GLYCERYL TRINITRATE SOLUTION	None given	SKIN	
HEXAETHYL TETRAPHOSPHATE	None given	Not listed	

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH			
NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
HYDROFLUORIC ACID SOLUTION	None given	Not listed	400mm @ 2.5
TOLUENE-AR,AR'-DIAMINE	None given	Not listed	
CHLOROMETHYL METHYL ETHER	None given	Not listed	
PARALDEHYDE	None given	Not listed	
PHENYLENEDIAMINE	None given	Not listed	
PROPARGYL ALCOHOL	None given	Not listed	
PROPARGYL ALCOHOL	None given	Not listed	
PROPIONITRILE	None given	Not listed	40 mm @ 22 C
SODIUM AZIDE	None given	Not listed	
VINYLIDENE FLUORIDE	None given	Not listed	
MONOCHLORODIFLUOROMETHANE	None given	1,250 ppm(4,375mg/m^3)	760 mm @ -40.8 C
METHYL ISOBUTYL KETONE	None given	75 ppm	15 mm
DI-SEC-OCTYL PHTHALATE	None given	10 mg/m^3	<.01mm Hg @ 200C
THIOPHENOL	None given	Not listed	
DIPHENYLAMINE	None given	Not listed	1 mm @108.3 C
4,4'-METHYLENE BIS(2-CHLOROANILINE)	None given	SKIN Suspected human carcinogen (A2)	
PHORATE	None given	0.2 mg/m^3 SKIN	0.00084 @ 20c
1,2-DICHLOROPROPANE	None given	110 ppm(510 mg/m^3)	40 mm Hg @ 19.4 C
PHENACETIN	None given	Not listed	

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH

NAME	IDLH	ACGIH STEL	VAPOR PRESSURE
MITOMYCIN C	None given	Not listed	na
SAFROL	None given	Not listed	
THIONAZIN	None given	Not listed	3x10-3mm @30 c
PHOSPHOROTHIOIC ACID, O,O-DIMETHYL O-[P-(DIMETHYLAMINO) SULFONYL ESTER	None given	Not listed	
ALDICARB	None given	Not listed	0.0001 @ 25 C
P-CHLOROANILINE	None given	Not listed	1mm @ 59.3 C
PHENYLMERCURY ACETATE	None given	as MERCURY - SKIN	0.000009mm @ 35 C
EPINEPHRINE	None given	Not listed	
5-NITRO-O-TOLUIDINE	None given	Not listed	
3-METHYLCHOLANTHRENE	None given	Not listed	
TRANS-1,2-DICHLOROETHENE	None given	Not listed	400mm @ 40 C
1,2-DIETHYLHYDRAZINE	None given	Not listed	
PHOSPHORIC ACID, DIETHYL P-NITROPHENYL ESTER	None given	Not listed	
1-PHENYLTHIOUREA	None given	Not listed	
STRONTIUM SULFIDE	None given	Not listed	
CHLORAL	None given	Not listed	35 mm @ 20c
1,3-DICHLOROBENZENE	None given	Not listed	
DIHYDROSAFROLE	None given	Not listed	
ETHYL 4,4'-DICHLOROBENZIATE	None given	Not listed	2.2 @ 20c

APPENDIX II(d) - RCRA LISTED HAZARDOUS WASTES ACCEPTED AT HERITAGE, LEMONT, IL - SORTED BY IDLH			
NAME	**IDLH**	**ACGIH STEL**	**VAPOR PRESSURE**
THIOUREA	None given	Not listed	
PHOSPHORODITHIOC ACID, O,O-DIETHYL S-METHYL ESTER	None given	Not listed	
CI DIRECT BLUE 14	None given	Not listed	
ISOFLUORPHATE	None given	Not listed	0.579 @ 20 C
4-AMINOPYRIDINE	None given	Not listed	
o-TOLUIDINE HYDROCHLORIDE	None given	Not listed	
N-FLUOREN-2-YL-ACETAMIDE,	None given	Not listed	
DIETHYLSTILBESTROL	None given	Not listed	
RESERPINE	None given	Not listed	
p-TOLUIDINE	None given	Suspected human carcinogen (A2)	
DIBENZ[A,H]ANTHRACENE	None given	Not listed	
TRIOCTYLARSINE	None given	Not listed	
2,4-DINITROPHENOL	None given	Not listed	
261 Records Processed			

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX III

HR/E EMERGENCY SERVICES CONTRACT AGREEMENT

ACKNOWLEDGEMENT OF AGREEMENT

This document, when signed and notarized by HERITAGE REMEDIATION/ENGINEERING, INC., will serve as documentation that Heritage Environmental Services - Lemont, Illinois. TSDF Site No.: ILD085349264 and 0311620007 has complied with the preparedness and prevention sections for securing arrangements with a hazardous materials cleanup contractor as outlined in 40 C.F.R. 264.37 (a) (1) and (3); 40 C.F.R. 265.37 (a) (1) and (3); and 29 C.F.R. 1910.120 (3) (1) (a) (4); and the Illinois Chemical Safety Act, P.A. 84-852.

Primary response will be provided by the Chicago Division. Secondary response will be provided as needed by HR/E Indianapolis, St. Louis, Louisville and Toledo Divisions.

HERITAGE REMEDIATION/ENGINEERING

BY: Geoffrey A Langley

Title: Corporate Manager of Technical Programs

Signature: _____

Before me the undersigned, a Notary Public for DuPage County, State of Illinois, personally appeared Geoffrey A. Langley, and he being first duly sworn by me upon his oath, says that the facts alleged in theforegoing instrument are true. Signed and sealed this 27th day of October 1989.

(SEAL) _____

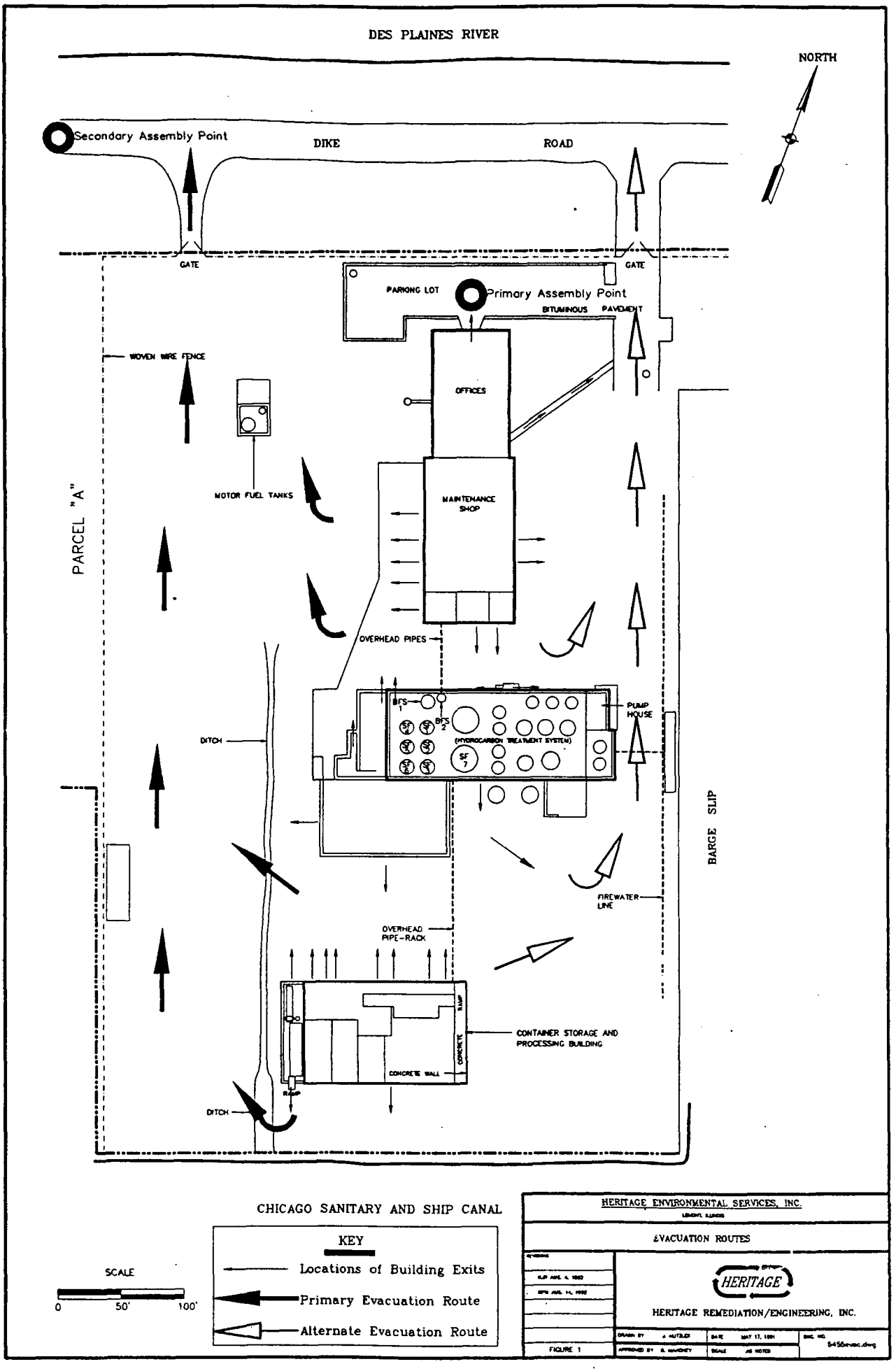
My Commission Expires: My Commission Expires Nov. 15, 1989

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX IV

EVACUATION ROUTES


DES PLAINES RIVER
NORTH
Secondary Assembly Point
DIKE
ROAD
GATE
GATE
PARKING LOT
Primary Assembly Point
BITUMINOUS PAVEMENT
WOVEN WIRE FENCE
OFFICES
MOTOR FUEL TANKS
MAINTENANCE SHOP
PARCEL "A"
OVERHEAD PIPES
PUMP HOUSE
DITCH
(HYDROCARBON TREATMENT SYSTEM)
BARGE SLIP
FIREWATER LINE
OVERHEAD PIPE-RACK
CONTAINER STORAGE AND PROCESSING BUILDING
CONCRETE WALL
RAMP
DITCH
CHICAGO SANITARY AND SHIP CANAL
KEY
Locations of Building Exits
Primary Evacuation Route
Alternate Evacuation Route
SCALE
0
50'
100'
HERITAGE ENVIRONMENTAL SERVICES, INC.
EVACUATION ROUTES
HERITAGE
HERITAGE REMEDIATION/ENGINEERING, INC.
FIGURE 1

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, ILLINOIS

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX V

INVENTORY OF EMERGENCY EQUIPMENT

INVENTORY OF AVAILABLE EMERGENCY EQUIPMENT

EQUIPMENT ITEMS:

The following heavy equipment items are located on-site:

2 - Vacuum trucks ranging in capacity from 5500 to 6000 gallons (located in the trailer parking area)

2 - Forklift vehicles (1 - drum storage/processing building; 1 - outdoor container storage area)

1 - 1000 cfm vacuum system (pump house)

2 - 5000 to 7000 gallon tanker trailers (usually located in trailer parking area)

1 - Air compressor with 125 cfm capacity (pump house)

1 - Bobcat (stabilization building) - Proposed

FIRE-FIGHTING EQUIPMENT:

39 - Portable SBC dry chemical fire extinguishers (5 - tank farm, 1 - lab, 18 - offices & maintenance shop, 4 - canal slip, 7 - drum storage building, 4 - fixation building)

3 - 150 lb. chemical wheel cart fire extinguishers

ATMOSPHERIC MONITORING EQUIPMENT:

1 - GASTECH (oxygen/LEL levels, hydrogen sulfide gases)

1 - SENSIDYNE (organic vapor monitor)

4 - LEL Detectors within Drum Storage/Processing Building

RESPIRATORY AND PERSONAL PROTECTIVE EQUIPMENT:

(located in main supply loft of maintenance shop and dedicated areas in the drum storage/processing building & stabilization/fixation building)

- Supplied-air pressure demand respirators, both SCBA and airline

- Air purifying cartridge respirators (both half-face and full-face)

- Chemical Protective Clothing (Levels A to C)
- PVC, neoprene, nitrile gloves
- Fireman's turnout gear
- Full-encapsulating response suits
- PE and Saranex Tyvek coveralls
- Goggles, face shields, safety glasses
- Hard hats

(NOTE: Personal protective equipment is inventoried weekly and resupplied as needed.)

COMMUNICATIONS EQUIPMENT:

- Telephones throughout offices, maintenance shop, laboratory, building adjacent to tank farm, container storage/processing building and fixation building

ALARM SYSTEM

- Switches to activate the alarm system are located in the maintenance shop, tank farm, container storage/processing building and fixation building

PUMPING EQUIPMENT AND MISCELLANEOUS TOOLS:
(Maintenance Shop)

- Portable pumps with varying length 2" - 3" hosing
- Miscellaneous tools (shovels, non-sparking brass; prybars; non-sparking brass; rope slings; chains; barrel grapples; etc.)

MATERIALS:
(Maintenance Shop)

- Floating containment boom
- Absorbent booms and pads
- Various absorbents, i.e., oil dry granulates, diatomite, animal bedding

- Lime
- Carbon-vapor suppression
- Plastic
- 85 gallon overpacks (SW side of property, along fence)
- 55 gallon steel and fiber drums (SW side of property, along fence)

REFER TO APPENDIX VI FOR LOCATIONS OF THE ABOVE DESCRIBED EQUIPMENT.

ADDITIONAL EQUIPMENT AVAILABLE THROUGH HR/E:
(Located in Romeoville, IL - Approximately five miles away)

HEAVY EQUIPMENT:

- vacuum trailers, van trailers with power lift gate, utility trucks, Case 680 backhoe, Case backhoe, International 175 track loader/dozer, 20 yard capacity dump trucks, decontamination trailer (equipped with first aid station, toilet facility, and safety shower), Emergency Response spill trailer, air compressors (ranging in capacity from 150 - 450 cfm), spill control boats, bobcats

MISCELLANEOUS EQUIPMENT:

- various portable pumps and hosing, portable outdoor lights, portable steamer, portable swimming pool
- all levels of personal protective gear
- absorbent materials, i.e., booms, pads, "oil snare", lime, vermiculite, etc.
- miscellaneous drums and overpacks

ATMOSPHERIC MONITORING EQUIPMENT:

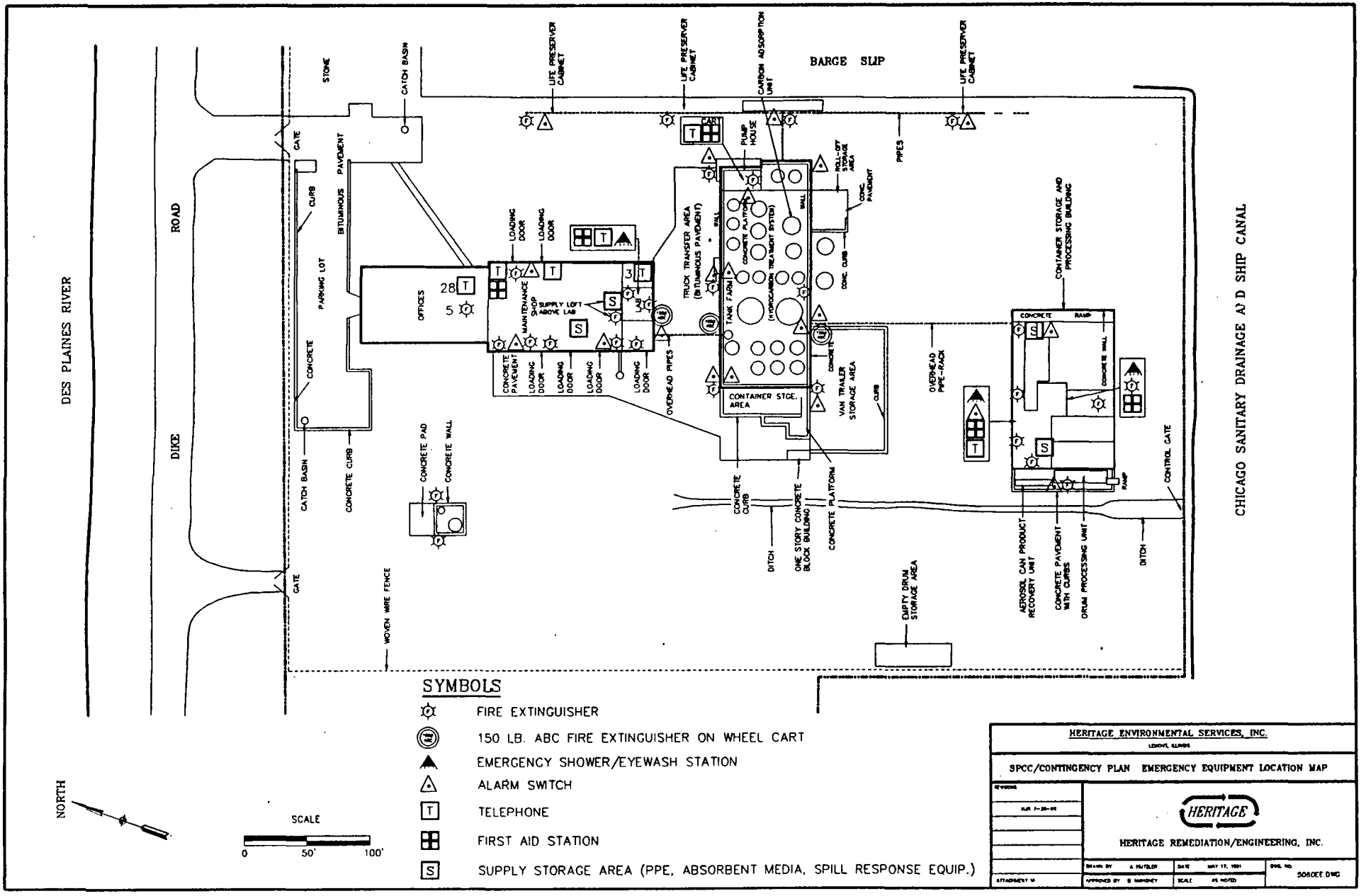
- HNU and Photovac PID organic vapor analyzers, Oxygen/LEL meters with alarms, HCN gas monitor with alarm, OVA with gas chromatograph, Draeger system with various detector tubes

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX VI

MAP LOCATIONS OF EMERGENCY EQUIPMENT



SYMBOLS

- FIRE EXTINGUISHER
- 150 LB. ABC FIRE EXTINGUISHER ON WHEEL CART
- EMERGENCY SHOWER/EYEWASH STATION
- ALARM SWITCH
- T — TELEPHONE
- FIRST AID STATION
- S — SUPPLY STORAGE AREA (PPE, ABSORBENT MEDIA, SPILL RESPONSE EQUIP.)

NORTH

SCALE 0 50' 100'

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, ILLINOIS

SPCC/CONTINGENCY PLAN EMERGENCY EQUIPMENT LOCATION MAP

HERITAGE

HERITAGE REMEDIATION/ENGINEERING, INC.

DRAWN BY A. HUTZLER | DATE MAY 17, 1991 | ENG. NO. 5060EE.DWG
APPROVED BY B. MAHONEY | SCALE AS NOTED
ATTACHMENT 10

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, ILLINOIS

CHEMICAL SAFETY & CONTINGENCY PLAN

ATTACHMENT VII

INVENTORY OF STORAGE AND TREATMENT TANK SYSTEMS, TABLE D-1

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, ILLINOIS

INVENTORY OF STORAGE AND TREATMENT TANK SYSTEMS
TABLE D-1

EXISTING TANKS

TANK #	TANK DESCRIPTION	HERITAGE PRODUCT NO.	VOLUME
TANK FARM-OIL HYDROCARBON TREATMENT SYSTEM			
SF-1	Supplemental Fuel Storage	15, 65, 18, 68	8,160 gallons
SF-2	Supplemental Fuel Storage	15, 65, 18, 68	9,867 gallons
SF-3	Supplemental Fuel Storage	15, 65, 18, 68	10,621 gallons
SF-4	Supplemental Fuel Storage	15, 65, 18, 68	10,491 gallons
SF-5	Supplemental Fuel Storage	15, 65, 18, 68	8,460 gallons
SF-6	Supplemental Fuel Storage	15, 65, 18, 68	8,148 gallons
SF-7	Supplemental Fuel Storage	15, 65, 18, 68	62,504 gallons
HT-1	Heat Treatment (oil & water, no VOC's)	02, 52 08, 58	62,504 gallons
HT-2	Heat Treatment Tank (oil & water, no VOC's)	02, 52, 06, 58	19,044 gallons
HT-3	Heat Treatment Tank (oil & water, no VOC's)	02, 52, 06, 58	18,971 gallons
HT-4	Heat Treatment Tank (oil & water, no VOC's)	02, 52, 08, 58	19,117 gallons
HT-5	Heat Treatment Tank (low flash off/suppl. fuel/water mixtures)	02, 52, 08, 58, 16, 66 (18, 68)	19,190 gallons

TANK #	TANK DESCRIPTION	HERITAGE PRODUCT NO.	VOLUME
CB-1	Cone Bottom Tank (trmt. water & oil/water, no VOC's)	02, 52, 06, 58	20,256 gallons
CB-2	Cone Bottom Tank (low flash oil/suppl. fuel/water mixtures)	02, 52, 08, 58, 16, 66 (18, 68)*	20,606 gallons
CB-3	Cone Bottom Tank (low flash oil/suppl. fuel/water mixtures)	02, 52, 08, 58, 16, 66 (18, 68)*	20,326 gallons
CB-4**	Cone Bottom Tank (low flash oil/suppl. fuel/water mixtures)	02, 52, 08, 58, 66 (18, 68)*	20,273 gallons
CAS	Carbon Adsorption Tank (Benzene contaminated wastewater)	35, 85	86,400 gpd***
VR-1	Vacuum Receiving Tank (small quantity drum & bulk loads)	02, 52, 08, 58, 16, 66 (18, 68)*	6,166 gallons
VR-2	Vacuum Receiving Tank (small quantity drum & bulk loads)	02, 52, 08, 58, 16, 66 (18, 68)*	5,585 gallons
VR-3	Vacuum Receiving Tank (small quantity drum & bulk loads)	02, 52, 08, 58, 16, 66 (18, 68)*	5,573 gallons
VR-4	Vacuum Receiving Tank (current barge cleaning operations; proposed for small quantity drum & bulk loads)	02, 52, 08, 58, 16, 66 (18, 68)*	6,162 gallons
WS-1	Non-Regulated Water Storage Tanks	N/A	28,488 gallons
WS-2	Non-Regulated Water Storage Tanks	N/A	28,472 gallons
LS-1	Water Storage Tank (Barge Cleaning Operations)	N/A	10,025 gallons

TANK #	TANK DESCRIPTION	HERITAGE PRODUCT NO.	VOLUME
PVR-1	Portable Vacuum Receiving Tank (*F-listed solvents from drums to bulk storage, also oils identified by product code; used exclusively for pumping)	16, 66, 18, 68, 02, 52	3,294 gallons
BFS-1	Boiler Fuel Storage Tank	N/A	16,317 gallons
AEROSOL CAN PRODUCT RECOVERY UNIT			
Primary Receiving	Receives Aerosol Can Contents From Crusher	N/A	1,000 gallons
Vacuum Receiving	Vacuum Recovery of Remainder of Aerosol Product From Can Crusher	N/A	≈ 50 gallons
MOTOR FUEL STORAGE TANKS			
Tank #	**Tank Description**	**Capacity**	**DOT Classification**
Diesel	Diesel Fuel Storage	8,000 gallons	Combustible liquid
Gasoline	Gasoline Storage	1,800 gallons	Flammable liquid
SANITARY WASTE TANK			
Sanitary Wastewater Holding Tank	Sanitary Wastewater Holding Tank	≈5,000 gallons	N/A

* Supplemental Fuels Except F001 through F005
** Proposed to be converted to sludge settling tank prior to plate and frame filter press
*** Theoretical Through-Put

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, ILLINOIS

INVENTORY OF STORAGE AND TREATMENT TANK SYSTEMS
TABLE D-1

PROPOSED TANKS

TANK #	TANK DESCRIPTION	HERITAGE PRODUCT NO.	VOLUME
TANK FARM - ACID NEUTRALIZATION SYSTEM (NOTE: Includes CB-4 As Sludge Settling Tank)			
LS-1	Lime Slurry Tank (Acid Treatment)	04, 54, 09, 59, 24, 74	10,025 gallons
FP-2	Plate and frame filter press (from lime neutralization treatment)	04, 54, 09, 59, 24, 74	N/A
Hydrated Lime	Product (Reagent) Storage tank	N/A	45 ton (1000 $ft.^3$)
FIXATION BUILDING - STABILIZATION TREATMENT SYSTEM			
S-1	Stabilization Bulk Dust Storage Silo (2200 $ft.^3$)	07, 57	100 ton
S-2	Stabilization Bulk Dust Storage Silo	07, 57	100 ton
S-3	Stabilization Bulk Dust Storage Silo	07, 57	100 ton
S-4	Stabilization Bulk Dust Storage Silo	07, 57	100 ton
S-5	Stabilization Bulk Dust Storage Silo	07, 57	100 ton
Kiln Dust Storage Tank	Cement Kiln Dust (& other reagents) for Stabilization - Product Storage	N/A	100 ton

TANK #	TANK DESCRIPTION	HERITAGE PRODUCT NO.	VOLUME
Kiln Dust Storage Tank	Cement Kiln Dust (& other reagents) for stabilization - Product Storage	N/A	100 ton
Liquid Reagent Tank	Liquid Additives for Stabilization	N/A	10,000 gallons
WW-1	Stabilization Wastewater Storage Tanks	03, 53, (04, 54, 05, 55, 09, 59, 24, 74)+	15,000 gallons
WW-2	Stabilization Wastewater Storage Tanks	03, 53 (04, 54, 05, 55, 09, 59, 24 74)+	15,000 gallons
PG	Pugmill Treatment Tank	07, 57, 03, 53; (04, 54, 05, 55, 09, 59, 24, 27)+ (06, 56 Pre-Treated)	100 tons/hr.
ULT	Unloading Tank	07, 57, 03, 53	240 tons
FIXATION BUILDING - ACID/BASE NEUTRALIZATION SYSTEM (Includes FP-2 and WW-3)			
N-1	Neutralization Tank (Acids/Caustics	04, 54, 05, 55, 09, 59, 24, 74	15,000 gallons
Lime Slurry Tank	Product (Reagent) Tank	N/A	5,000 gallons
Hydrated Lime Storage Silo	Product (Reagent) Storage Tank	N/A	45 tons
FIXATION BUILDING - CYANIDE TREATMENT SYSTEM			
CN-1	Cyanide Destruction Tanks	06, 56 (07, 57 as needed)	1,200 gallons
CN-2	Cyanide Destruction Tanks	06, 56 (07, 57 as needed)	1,200 gallons

TANK #	TANK DESCRIPTION	HERITAGE PRODUCT NO.	VOLUME
CN-3	Cyanide Destruction Tanks	06, 56 (07, 57 as needed)	1,200 gallons
CN-4	Bulk Liquid Cyanide Storage	06, 56 (07, 57 as needed)	10,000 gallons
CN-5	Solid Cyanide Slurry Tank	06, 56 (07, 57 as needed)	3,800 gallons
CN-6	Hydrolysis Effluent Storage Tank	06, 56 (07, 57 as needed)	10,000 gallons
WW-3	Treated Wastewater Treatment Tank (from acid/base neutralization & CN destruction); < 90 day storage unit	04, 54, 05, 55, 06, 56, 07, 57, 09, 59, 24, 74	15,000 gallons
FP-2++	Plate & Frame Filter Press (solids dewatering)	04, 54, 05, 55, 56, 07, 57 09, 59, 24, 74	N/A
Nitric and Tank	Product (Reagent) Storage Silo	N/A	7,500 gallons
Ammonium Nitrate Tank	Generated Product Tank (for resale)	N/A	7,500 gallons
AST	Air Stripper Tank	06,56,(07,57 as needed)	6,000 gallons
+ Dilute acidic/basic solutions of these products will be chemically fixated for heavy metals			
++ Filter press will also be operated for dewatering high aqueous sludges or wet solids prior to stabilization			

Storage Bays 1, 2, 3, 4 stores waste characterized as corrosive, in addition to wastes which are compatible (e.g., non-hazardous wastes, other regulated materials, poisons). Under no circumstances will flammable solids, oxidizers, or organic peroxides be stored in this unit. To ensure proper storage, placards identifying the hazard classes stored within the bays are prominently posted at the bay.

Storage Bays 5, 6, 7, 8, 9, 10, 11 Stores waste characterized as flammable liquids, in addition to wastes which are compatible (e.g., non-hazardous wastes, other regulated materials, poisons, flammable solids). Under no circumstances will corrosives be stored in these bays. To ensure proper storage, placards identifying hazard classes stored within the bays are prominently posted at the bay.

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX VIII

INCIDENT SCENARIO DISCUSSION AND MODELLING

Introduction

The purpose of this document is to evaluate possible accident scenarios at the facility. The results of scenario evaluation presented herein should assist the Emergency Coordinator in the determination of potential on-site and off-site impacts. This information will allow more effective decision-making during emergency situations.

Selection of Scenarios Evaluated

Three basic types of emergencies were considered based upon the operations at the facility;

I Release/ignition of a large quantity of flammable liquid,
II Flammable gas release/ignition, and toxic gas release,
III Toxic vapor generation from a material release.

Selection of Waste Materials Evaluated

Chemicals were selected for modeling from a chemical database which was sorted to indicate ignitable (D001), corrosive (D002), reactive (D003), and listed hazardous waste chemicals. These lists were further narrowed to include only those chemicals with an established IDLH value. These materials were considered the have the greatest potential for adverse off-site impacts under a release scenario. The list of chemicals with an IDLH value was then examined for materials which had a non-liquid physical state. The materials which were in a solid state at standard temperature and pressure (typically having low or no vapor pressures) were not modeled because of the lack of mode of transport for these materials and the ARCHIE program is not designed for modeling such occurrences. Gas releases are considered based upon IDLH value and quantity of gas likely to be present on-site. Currently gaseous materials are not accepted at the facility except as propellants in aerosol cans. Chemicals modeled were selected based upon IDLH and vapor pressure values. For materials with similar IDLH values, the material with the highest vapor pressure was modeled first and then materials in order of decreasing vapor pressure until the off-site threshold was not exceeded.

The volume of waste chemicals involved in each scenario is based upon operating practices at the facility. In general the largest quantity of a single type of waste material currently handled at the facility is flammable liquids utilized for supplemental fuels blending. Additional waste materials which will be handled in the future or are currently handled include corrosive solutions and cyanide wastes.

Most of the RCRA listed waste materials presented in Appendix II are received in labpacks from generator facilities. Typically the amount of any one chemical received at the facility will be relatively minor, usually less than 5 gallons. In addition, the probability of the presence of more than one labpack shipment containing the same chemical waste being present at the facility simultaneously is very low. For evaluation purposes, the quantity of waste involved in an event was assumed to be 55 gallons (one drum).

Materials on the accepted waste list which are gases were evaluated for the most common shipping container (cylinder) size, and the weight of gas in pounds which would be present in a full container.

The following is a brief description of the scenarios which are included to demonstrate possible hazards that may result from an incident at the facility.

Group I - Release and ignition of a large quantity of flammable liquid.

A storage tank within the tank farm fails, releasing 30,000 pounds (1,690 gallons) of xylene, which is contained within the secondary containment area. An ignition source is introduced and the material ignites. The other storage tanks within the tank farm do not contain flammable liquids. Vapor generation and thermal radiation hazards are evaluated.

Group II - Compressed gas release and ignition

The Primary Receiving Tank for propellant gas recovery at the Aerosol Can Product Recovery Unit fails and releases a mixture of propane and butane gas to the atmosphere. Vapor generation, explosion potential and thermal radiation hazards are evaluated.

Release from the Compressed Gas Storage Area of 100 pounds of each of the following gases.

SUBSTANCE	IDLH	Vapor Pressure
Phosgene	2ppm	1,314mm
Arsine	6ppm	11,400mm
Hydrogen Fluoride	30ppm	760mm
Nitrogen Dioxide	50ppm	720mm
Nitric Oxide	100ppm	26,000mm
Monomethylamine	100ppm	2,249mm
Phosphine	200ppm	31,388mm
Hydrogen Sulfide	300ppm	14,000mm

Group III - Toxic vapor generation from a material release

A 5,000 gallon tanker spill of 20% Potassium Cyanide (P098 - IDLH 50mg/m3) solution at an unloading station within secondary containment.

Release from storage areas of 55 gallons of each of the following substances.

SUBSTANCE	IDLH	Vapor Pressure
Acrolein	5ppm	210mm
Sulfur Monchloride	10ppm	6.8mm
Perchloromethylmercaptan	10ppm	65mm
Methyl Isocyanate	20ppm	348mm
Phosphorus Trichloride	50ppm	100mm
Formaldehyde	30ppm	3431mm (estimated)
Chloroacetaldehyde	100ppm	100mm
Allyl Alcohol	150ppm	23.8mm
Allyl Glycidyl Ether	270ppm	23,703mm
Allyl Chloride	300ppm	295mm
Chloroprene	400ppm	179mm
Carbon Disulfide	500ppm	360mm @ 25C
Methyl Chloroform	1000ppm	100mm
Trichloroethylene	1000ppm	58mm
Propylene Oxide	2000ppm	400mm
Butylamine	2000ppm	82mm
Ethyl Mercaptan	2500ppm	442mm
1,1-Dichloroethane	4000ppm	230mm
Acetonitrile	4000ppm	100mm
Dichloromethane	5000ppm	440mm
Acetaldehyde	10000ppm	***mm
Fluorotirchloromethane	10000ppm	797mm
1,2-Dichloroethylene	4000ppm	180mm
Isopropylamine	4000ppm	478mm

Toxic Gas By-products of Combustion

One of the Part B Permit requirements was to evaluate the potential toxic gas by-products of combustion at the facility. The ARCHIE program is not designed to evaluate such scenarios. The limitations of the program and the multitude of possible combinations of materials which could combine in a fire situation precludes the modeling of potential effects of products of combustion. Heritage has effectively appraised the potential impacts from products of combustion through the modeling of the various gases which may be accepted at the facility and utilizing those modeling results as a basis for comparison. It is anticipated that the release of the pressurized gases should exceed the poundage of products of combustion generated during a fire event. Accordingly, the potential off-site impacts resulting from products of combustion from materials on-site should also be less than the modeling results for the release of pressurized gases. The Emergency Coordinator is tasked to consider the potential off-site impacts from by-products of combustion upon implementing the Contingency Plan. The additional data provided within this report should assist the Emergency Coordinator in that capacity.

Discussion of Variables Used in Modeling

Appropriate Exposure Limit (AEL) - The modeling utilized and AEL calculated as the IDLH value divided by ten.

Atmospheric Conditions - Modeling assessments were performed utilizing atmospheric class D, B, and C. Class D is defined as neutral conditions, Class B is moderately unstable and Class C is slightly unstable. These classes are all utilized to model daytime atmospheric conditions. These conditions were chosen because the operations at the facility (i.e. transfer and movement of materials) typically take place during the daytime.

Wind speeds were utilized which corresponded to the Atmospheric Stability Chart in the ARCHIE manual (Class D - 11.2 mph, Class C - 7 mph, Class B - 4 mph).

Temperature was assumed to be 70 degrees Fahrenheit for all modelling scenarios.

Estimated Pool Areas - Several of the cases modeled utilized the known areas of secondary containment structures at the facility. In some cases the ARCHIE program was allowed to estimate the maximum pool size from a material assumed to be release outside of secondary containment. In many of these cases the pool area estimated through ARCHIE was in exceedence of a credible area. However these computer estimated pool sizes were used for modeling those scenarios. For the majority of events a conservative pool area of 1500 square feet (corresponding to the square footage of the outdoor drum storage area) was utilized.

Duration of Release - In all cases a one minute release duration was utilized. Once the material was released vapor evolution began and duration was estimated by the ARCHIE computer program. As with the pool areas, many of the estimated durations were not

credible, or did not account for response actions to mitigate the release of material. However these computer estimated durations were used for modeling those scenarios.
Source Height - A source height of 0 feet (ground level) was utilized for all scenarios modeled.

Physical Characteristics - Physical characteristics (molecular weight, boiling point, vapor pressure) for all materials were obtained from MSDS information. Scenarios in which solutions were modeled utilized the vapor pressure of the pure compound.

Discussion of Modeling Results

The results of the modeling conducted are presented in Table I. In general the results indicate that potential off-site impacts could occur for some materials in some scenarios. Therefore these materials have been placed upon a Special Precaution list (Appendix IX) and additional precautionary procedures have been written into the Contingency Plan regarding these materials.

When utilizing the ARCHIE model, the downwind distance considered to constitute off-site impacts was 400 feet. Therefore, materials modeled which exceeded 400 feet in distance to their AEL were placed on the Special Precaution list. Every compound on the facility waste acceptance list was not modeled to determine distance to AEL. However vapor pressure and IDLH value were considered in selecting compounds to model.
Some key information gained from the results of the modeling, which should be reviewed and considered by the Emergency Coordinator, were;

- increased wind speed extends the range of effect and shortens the length of time to potential receptors, (In general, the time required for a vapor cloud to reach this distance is approximately 20-25 seconds).
- unstable atmospheric conditions increase dispersion, stable conditions tend to minimize dispersion.
- the quantity of material released is secondary to the pool (surface) area in effect on vapor evolution (larger pool surface areas generate more vapors than a higher volume of material).
- cases modeled were generally for pure materials, if solutions containing these materials are released, consideration should be given to solution strength.
- quantities of Special Precaution materials modeled were in exceedence of quantities expected to be on-site at any one time.
- fire and explosion hazards considered did not appear to result in any significant off-site impacts.

APPENDIX VIII - TABLE 1
TABULATION OF MODELING RESULTS

Heritage Treatment Center - Lemont, Illinois

Scenario	Material	Pounds Released	Pool Area (ft^2)	Wind (mph)	Atmospheric Stability Class	Evolution Vapor Rate (lb/min)	Vapor Evolution Duration (min)	AEL (ppm)	Distance to AEL (ft)	AEL Arr. Time (min)	AEL Dep. Time (min)
1-Cylinder Gas	Phosgene	100	N/A	11.2	D	95	1	0.2	14,886	15.2	31.3
1-Cylinder Gas	Phosgene	100	N/A	4	B	95	1	0.2	4,483	12.8	26.5
1-Cylinder Gas	Phosgene	100	N/A	7	C	95	1	0.2	7,520	12.3	25.5
55-gallon Drum (NC)	Acrolein	386	900	11.2	D	17.1	22.8	0.5	6,961	7.1	37
55-gallon Drum (NC)	Acrolein	386	900	4	B	17.1	22.8	0.5	3,532	10.1	42.9
55-gallon Drum (SC)	Sulphur Monochloride	775.4	225	11.2	D	1.53	509	1.0	658	0.7	511
55-gallon Drum (SC)	Sulphur Monochloride	775.4	225	7	C	1.53	509	1.0	521	0.9	511.3
55-gallon Drum (SC)	Perchloromethyl Mercaptan	790	225	11.2	D	20.2	39.3	1.0	2,412	2.5	44.2
55-gallon Drum (SC)	Perchloromethyl Mercaptan	790	225	4	B	20.2	39.3	1.0	1,457	4.2	47.6
55-gallon Drum (SC)	Methylisocyanate	400	225	11.2	D	25.4	15.8	2.0	3,736	3.8	23.4
55-gallon Drum (SC)	Methylisocyanate	400	225	7	C	25.4	15.8	2.0	2,594	4.3	24.3
55-gallon Drum (NC)	Phosphorous Trichloride	660	1,177	11.2	D	117.1	5.64	5.0	3,156	3.3	12.1
55-gallon Drum (NC)	Phosphorous Trichloride	660	1,177	4	B	117.1	5.64	5.0	1,832	5.3	16.1
1,000 gallon (SC)	Formalin 37% Solution	7,500	900	11.2	D	24.6	304.9	3.0	4,230	4.3	313.5
Tank Failure (SC)	Xylene	30,000	4,000	11.2	D	31.1	967.6	100	314	0.4	968.3
40% Solution 55-gal(NC)	Chloroacetaldehyde	450	1,211	11.2	D	68.5	6.58	10.0	2,124	2.2	10.9
40% Solution 55-gal(NC)	Chloroacetaldehyde	450	1,211	7	C	68.5	6.58	10.0	1.557	2.6	11.7
55-gallon (NC)	Allyl Alcohol	400	1,500	11.2	D	23.8	16.9	15.0	1,087	1.2	19.2

APPENDIX VIII - TABLE 1
TABULATION OF MODELING RESULTS

Heritage Treatment Center - Lemont, Illinois

Scenario	Material	Pounds Released	Pool Area (ft^2)	Wind (mph)	Atmospheric Stability Class	Evolution Vapor Rate (lb/min)	Vapor Evolution Duration (min)	AEL (ppm)	Distance to AEL (ft)	AEL Arr. Time (min)	AEL Dep. Time (min)
55-gallon (SC)	Allyl Glycidyl Ether	400	1,500	11.2	D	400	1	27.0	2,687	2.8	6.5
55-gallon (SC)	Allyl Chloride	440	1,500	11.2	D	203.3	2.17	30.0	2,143	2.2	6.6
55-gallon (SC)	Chloroprene	440	1,500	11.2	D	159	2.77	40.0	1,441	1.5	5.7
55-gallon (SC)	Carbon Disulfide	650	1,500	11.2	D	230.2	2.83	50.0	1,721	1.8	6.4
55-gallon (SC)	Chloroform	675	1,500	11.2	D	196.6	3.44	100.0	809	0.9	5.1
55-gallon (SC)	Methyl Chloroform	550	1,500	11.2	D	144.9	3.8	100.0	641	0.7	5.2
55-gallon (SC)	Trichlorocthylene	600	1,500	11.2	D	84.7	7.1	100.0	480	0.5	8.1
55-gallon (SC)	Propylene Oxide	380	1,500	11.2	D	187.9	2.03	200.0	807	0.9	3.7
55-gallon (SC)	Butyl Amine	350	1,500	11.2	D	65.4	5.36	200.0	396	0.5	6.2
55-gallon (SC)	Ethyl Mercaptan	350	1,500	11.2	D	213.2	1.65	250.0	736	0.8	3.2
55-gallon (SC)	Ethyl Mercaptan	350	750	11.2	D	106.6	3.29	250.0	501	0.6	4.4
55-gallon (SC)	1,1-Dichloroethane	480	1,500	11.2	D	218.9	2.2	400.0	441	0.5	3.1
55-gallon (SC)	Acetonitrile	325	1,500	11.2	D	44	7.39	400.0	300	0.4	8.0
55-gallon (SC)	Dichloromethane	600	1,500	11.2	D	294.9	2.04	500.0	500	0.6	3.1
55-gallon (SC)	Acetaldehyde	360	1,500	11.2	D	186.1	1.94	1,000.0	383	0.4	2.8
55-gallon (SC)	Trichlorofluoromethane	620	1,500	11.2	D	608.3	1.02	1,000.0	391	0.4	1.9
55-gallon (SC)	1,2-Dichloroethylene	550	1,500	11.2	D	175.9	3.13	400.0	396	0.5	4.0
55-gallon (SC)	Isopropylamine	320	1,500	11.2	D	212	1.52	400.0	580	0.6	2.7
5,000 gallons 20% Solution	Potassium Cyanide	8,000	5,000	11.2	D	0.238	33661.7	5.0 mg/m^3	254	0.3	33662.3

APPENDIX VIII - TABLE 1
TABULATION OF MODELING RESULTS

Heritage Treatment Center - Lemont, Illinois

Scenario	Material	Pounds Released	Pool Area (ft^2)	Wind (mph)	Atmospheric Stability Class	Evolution Vapor Rate (lb/min)	Vapor Evolution Duration (min)	AEL (ppm)	Distance to AEL (ft)	AEL Arr. Time (min)	AEL Dep. Time (min)
1 Cylinder Gas	Hydrogen Fluoride	100	N/A	11.2	D	100	1	3.0	9,438	9.6	20.2
1 Cylinder Gas	Nitrogen Dioxide	120	N/A	11.2	D	120	1	5.0	5,580	5.7	12.4
1 Cylinder Gas	Hydrogen Sulfide	170	N/A	11.2	D	170	1	30.0	2,638	2.7	6.4
1 Cylinder Gas	Arsine	40	N/A	11.2	D	40	1	0.6	6,960	7.1	15.2
1 Cylinder Gas	Monomethylamine	125	N/A	11.2	D	125	1	10.0	4,922	5	11
1 Cylinder Gas	Nitric Oxide	833	N/A	11.2	D	8.33	1	10.0	1,096	1.2	3.3
1 Cylinder Gas	Phosphine	20	N/A	11.2	D	20	1	20.0	1,133	1.2	3.3

NC = No Containment
SC = Secondary Containment
AEL = Appropriate Exposure Limit (IDLH/10)

Scenario	Material	Pounds Released	Pool Area (ft^2)	Wind (mph)	Atmospheric Stability Class	Burning Pool Radius (ft.)	Flame Height (ft.)	Fatality Zone (ft.)	Injury Zone
Ignition	Xylene	30,000	4,000	11.2	D	35.7	84	74	106

Vapor Cloud Fire Hazards Distance to LFL-33 feet, to 1/2 LFL-42 feet

Scenario	Material	Pounds Released	Pool Area (ft^2)	Wind (mph)	Atmospheric Stability Class	Flame Jet (ft.)	Safe Separation (ft.)
Ignition	Propane/Butane	82	N/A	11.2	D	93	186

Vapor Cloud Fire Hazards Distance to LFL-86 feet, to 1/2 LFL-125 feet

No major structural damage predicted from explosion beyond 94 feet.

HERITAGE ENVIRONMENTAL SERVICES, INC.
LEMONT, IL

CHEMICAL SAFETY & CONTINGENCY PLAN

APPENDIX IX

SPECIAL PRECAUTION WASTE MATERIALS LIST

SPECIAL PRECAUTION WASTE MATERIALS HERITAGE TREATMENT CENTER - LEMONT, IL LIQUIDS		
NAME	EPA ID	IDLH
1,1,2,2-TETRACHLOROETHANE	U209	150 ppm
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	F001	4500 ppm
1,1,2-TRICHLOROETHANE	U227	500 ppm
1,1-DICHLOROETHANE	U076, D001	4000 ppm
ACROLEIN	P003, D001	5 ppm
ACRYLONITRILE	U009, D001	500 ppm
ALLYL ALCOHOL	P005, D001	150 ppm
ALLYL CHLORIDE	D001	300 ppm
ALLYL GLYCIDYL ETHER	D001	270 ppm
ANILINE	U012	100 ppm
BENZYL CHLORIDE	P028, D002	10 ppm
BROMINE	D002	10 ppm
BUTYLAMINE	D001	2000 ppm
CARBON DISULFIDE	P022, D001	500 ppm
CARBON TETRACHLORIDE	U211, D019	300 ppm
CHLORDANE	U036, D020	500 mg/m^3
CHLOROACETALDEHYDE	P023	100 ppm
CHLOROFORM	U044, D022	1000 ppm
CHLOROPRENE	D001	400 ppm
CRESOL	U052, D026	250 ppm
DICHLOROETHYL ETHER	U025, D001	250 ppm
DICHLOROMETHANE	U080	5000 ppm
DIETHYLAMINE	D001	2000 ppm
DIETHYLAMINO ETHANOL	D001	500 ppm
DIISOPROPYL AMINE	D001	1000 ppm
DIMETHYL SULFATE	U103, D002	10 ppm

SPECIAL PRECAUTION WASTE MATERIALS HERITAGE TREATMENT CENTER - LEMONT, IL LIQUIDS		
NAME	EPA ID	IDLH
EPICHLOROHYDRIN	U041	250 ppm
ETHYL MERCAPTAN	D001	2500 ppm
ETHYLAMINE	D001	4000 ppm
ETHYLENE DIBROMIDE	U067	400 ppm
ETHYLENE DICHLORIDE	U077, D028, D001	1000 ppm
FORMALDEHYDE	U122	30 ppm
NOTE: The previous compound exists as a gas and is typically utilized in solution (FORMALIN). IDLH level is based only upon formaldehyde exposure.		
FORMIC ACID	U123, D002	30 ppm
FURFURAL	U125, D001	250 ppm
HEXACHLOROETHANE	U131, D034	300 ppm
HYDRAZINE	U133, D002, D001	80 ppm
HYDROCYANIC ACID	P063, D001	50 ppm
HYDROGEN FLUORIDE	U134, D002	30 ppm
ISOPROPYL GLYCIDYL ETHER	D001	1000 ppm
ISOPROPYLAMINE	D001	4000 ppm
M-DINITROBENZENE		200 mg/m^3
MERCURY, DIMETHYL	D009, D001	10 mg/m^3
METHYL ACRYLATE	D001	1000 ppm
METHYL CHLOROFORM	U226	1000 ppm
METHYL FORMATE	D001	5000 ppm
METHYL IODIDE	U138	800 ppm
METHYL ISOCYANATE	P064, D001	20 ppm
METHYLHYDRAZINE	P068, D002, D001	50 ppm
NAPHTHALENE	U165, D001	500 ppm
NICOTINE	P075	35 mg/m^3
NOTE: Alkaloid liquid typically 95% nicotine, aqueous sulfate liquid typically 40% nicotine		

SPECIAL PRECAUTION WASTE MATERIALS HERITAGE TREATMENT CENTER - LEMONT, IL LIQUIDS		
NAME	**EPA ID**	**IDLH**
NITROBENZENE	U169, D036	200 ppm
NITROETHANE	D001	1000 ppm
NITROMETHANE	D001	1000 ppm
OSMIUM TETROXIDE (OSMIC ACID)	P087	1 mg/m^3
DIMORPHIC (LIQUID AND CRYSTALLINE) COMPOUND, USUSALLY SOLID P-CRESYLIC ACID	U052, D025	250 ppm
PERCHLOROMETHYLMERCAPTAN		10 ppm
PERCHLOROYLFLUORIDE	D001	385 ppm
PHOSPHORUS TRICHLORIDE	D002	50 ppm
PROPYLENE OXIDE	D001	2000 ppm
SULFUR MONOCHLORIDE	D002	10 ppm
TETRACHLOROETHYLENE	U210, D039	500 ppm
TETRAETHYLPYROPHOSPHATE (TEPP)	P111	10 mg/m^3
TETRANITROMETHANE	P112, D001	5 ppm
TOLUENEDIISOCYANATE	U223	10 ppm
TRICHLOROETHYLENE	U228, D040	1000 ppm
TRIETHYLAMINE	D001	1000 ppm
o-TOLUIDINE	U328	100 ppm
p-BENZOQUINONE	U197	75 ppm
NOTES: These above liquid materials require tracking only when received as concentrated or pure chemicals. Aqueous or other solutions containing these chemicals should be evaluated for potential off-site hazards through use of the ARCHIE computer program. Should a solution have the potential for off-site impact the special precautions and notification specified in the Contingency Plan should be enacted.		

SPECIAL PRECAUTION WASTE MATERIALS HERITAGE TREATMENT CENTER - LEMONT, IL SOLIDS		
NAME	EPA ID	IDLH
2,4-D ACID Solid material, usually in solution (10% to 85% acid)	U240, D016	500 mg/m^3
ALDRIN Solid material, usually in solution (60% aldrin)	P004	100 mg/m^3
ALPHA-NAPHTHYLTHIOUREA (ANTU) Solid material, usually in solution	P072	100 mg/m^3
ARSENIC ACID Solid material, usually in solution (water miscible 75%)	P010, D004	100 mg/m^3
ARSENIC PENTOXIDE Solid material, usually in solution (water miscible 75%)	P011, D004	100 mg/m^3
ARSENOUS OXIDE Solid material, sometimes in solution	P012, D004	100 mg/m^3
BARIUM CYANIDE Solid material, sometimes in solution (WATER OR ALCOHOL)	P013, D005	50 mg/m^3
BERYLLIUM Solid material (hard, brittle gray-white metal)	P015, D001	10 mg/m^3
BERYLLIUM NITRATE Deliquescent solid material	D001	10 mg/m^3
CADMIUM Solid material (soft, maleable blue-white Metal)	D006	50 mg/m^3
CALCIUM CHROMATE Solid material (bright yellow powder)	U032, D007	30 mg/m^3
CAMPHECHLOR Solid material typically utilized in solution	P123, D015	200 mg/m^3
CAMPHOR Solid material typically utilized in solution	D001	200 mg/m^3
CHROMIC ANHYDRIDE	D001, D002, D007	30 mg/m^3
CHROMIUM TRIOXIDE, ANHYDROUS	D001, D002, D007	30 mg/m^3
NOTE: The 2 previous compounds are typically called chromic acid which exists only in solution. IDLH level is based upon chromium exposure.		
CYANIDE OR CYANIDE MIXTURE, DRY Solid material typically utilized in solution		50 mg/m^3
DECABORANE(14) Solid material (colorless crystals)	D001	100 mg/m^3

SPECIAL PRECAUTION WASTE MATERIALS HERITAGE TREATMENT CENTER - LEMONT, IL SOLIDS		
NAME	**EPA ID**	**IDLH**
DIELDRIN Solid material, sometimes in solution	P037	450 mg/m^3
HEPTACHLOR Solid material, sometimes in solution	P059, D031	700 mg/m^3
LINDANE Solid material, sometimes in solution	U129, D013	1000 mg/m^3
LITHIUM HYDRIDE Solid material (white translucent crystals)	D003	55 mg/m^3
P-NITROANILINE Solid material (bright yellow powder)	P077	300 mg/m^3
PARATHION Solid material, sometimes in solution	P089	20 mg/m^3
PENTACHLOROPHENOL Solid material, usually in solution (HYDROCARBON, 5% SOLUTION)	U242, D037	150 mg/m^3
PICRAMIC ACID, ZIRCONIUM SALT Solid material (yellow crystals), sometimes in solution	D001	500 mg/m^3
PICRIC ACID Solid material (yellow crystals), usually in solution	D003	100 mg/m^3
POTASSIUM CYANIDE Solid material (white lumps/crystalline mass) usually in aqueous solution	P098	50 mg/m^3
SODIUM CYANIDE Solid material (white crystalline powder) usually in 30% aqueous solution, Reagents may be from 75% to 98% solutions.	P106	50 mg/m^3
SODIUM FLUOROACETATE Solid material (fine white powder)	P058	5 mg/m^3
STANNIC PHOSPHIDE Solid material (silver-white hard mass or lumps)	D003	400 mg/m^3
STRYCHNINE Solid material (white crystalline powder), typically 0.5% to 1% concentration in baits when used as rodenticide.	P108	3 mg/m^3
TETRAETHYL LEAD	P110, D008	40 mg/m^3
TETRAMETHYL LEAD	D008, D001	40 mg/m^3
NOTE: The 2 previous compounds are liquids, IDLH values are based upon lead exposure.		

SPECIAL PRECAUTION WASTE MATERIALS HERITAGE TREATMENT CENTER - LEMONT, IL SOLIDS		
NAME	**EPA ID**	**IDLH**
THALLIC OXIDE	P113	20 mg/m^3
THALLIUM (I) ACETATE	U214	20 mg/m^3
THALLIUM (I) NITRATE	U217, D001	20 mg/m^3
THALLIUM (I) SELENITE	P114, D010	20 mg/m^3
THALLIUM CHLORATE	D001	20 mg/m^3
THALLOUS CARBONATE	U215	20 mg/m^3
THALLOUS CHLORIDE	U216	20 mg/m^3
THALLOUS SULFATE	P115	20 mg/m^3
NOTE: The 8 previous compounds are solids, IDLH values are based upon thallium exposure.		
VANADIUM PENTOXIDE Solid material (yellow to red crystalline powder), IDLH is based upon dust or fumes	P120	70 mg/m^3
ZIRCONIUM HYDRIDE Solid material (metallic dark gray to black powder)	D001	500 mg/m^3
ZIRCONIUM METAL, LIQUID SUSPENSION Solid material (grayish-white lustrous metal)	D001	500 mg/m^3
ZIRCONIUM NITRATE Solid material (white crystalls)	D001	500 mg/m^3
NOTES: These solid materials require tracking only when received as pure chemicals. Aqueous or other solutions containing these chemicals should be evaluated for potential off-site hazards. Should a solution have the potential for off-site impact the special precautions and notification specified in the Contingency Plan should be enacted.		

SPECIAL PRECAUTION WASTE MATERIALS HERITAGE TREATMENT CENTER - LEMONT, IL GASES		
NAME	EPA ID	IDLH
ANTIMONY HYDRIDE Gas at STP (may be liquified under pressure)	D001	40 ppm
ARSINE Gas at STP (may be liquified under pressure)	D001, D004	6 ppm
CARBON MONOXIDE Gas at STP (may be liquified under pressure)	D001	1500 ppm
CHLORINE TRIFLUORIDE Gas at STP (may be liquified under pressure)	D002, D001	20 ppm
DIBORANE Gas at STP (may be liquified under pressure)	D001	40 ppm
DIMETHYLAMINE Gas at STP (may be liquified under pressure)	U092, D001	2000 ppm
HYDROGEN CYANIDE Gas at STP (may be liquified under pressure)	D001	50 ppm
HYDROGEN FLUORIDE Gas at STP (may be liquified under pressure)	D002	30 ppm
HYDROGEN SELENIDE Gas at STP (may be liquified under pressure)	D010, D001	2 ppm
HYDROGEN SULFIDE Gas at STP (may be liquified under pressure)	U135, D001	300 ppm
MONOMETHYLAMINE Gas at STP (may be liquified under pressure)	D001	100 ppm
NITRIC OXIDE Gas at STP (may be liquified under pressure)	P076	100 ppm
NITROGEN DIOXIDE Gas at STP (may be liquified under pressure)	P078, D001	50 ppm
NITROGEN TRIFLUORIDE Gas at STP (may be liquified under pressure)	D001	2000 ppm
PHOSGENE Gas at STP (may be liquified under pressure)	P095, D002	2 ppm
PHOSPHINE Gas at STP (may be liquified under pressure)	P096, D001	200 ppm
NOTES: The facility does not currently accept these materials, however, eventually these materials will be accepted and precautionary measures specified in the Contingency Plan should be implemented.		
129 Records Processed		

ATTACHMENT II

DRAFT LETTER OF TRANSMITTAL

DRAFT LETTER OF TRANSMITTAL

Addressees on Distribution List

Heritage Environmental Services, Inc. (Heritage) is an industrial waste storage and treatment facility subject to regulation under Illinois Pollution Control Board adopted rules, 35 Illinois Administrative Code (IAC), Subtitle G: Waste Disposal.

Under the regulation 35 IAC Section 724.137, Heritage is required to distribute copies of the Contingency Plan (Plan) whenever substantial amendments are made to the Plan. Attached to this transmittal is the current Plan which has been amended per Illinois Environmental Protection Agency (IEPA) permit conditions. This updated document contains information regarding site configuration and operation, in addition to the criteria which will result in Plan implementation and procedures to be followed during implementation.

As an additional IEPA requirement (35 IAC Section 724.137), Heritage must attempt to make arrangements with local Police and Fire Departments and Hospitals regarding the following items;

- Familiarization of local Police and Fire Departments with the layout of the facility, properties of hazardous wastes handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility and possible evacuation routes.

- Familiarization of local hospitals properties of hazardous wastes handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

- Review all components of the Plan with local emergency response entities during the month of October each year.

In order to comply with this requirement Heritage has provided expanded information regarding facility layout, properties of hazardous wastes handled at the facility and associated hazards, entrances to and roads inside the facility, and possible evacuation routes in the revised Plan.

Material Safety Data Sheets are documents which include information on physical and chemical properties of materials. Heritage has available Material Safety Data Sheets (MSDS) for the individual chemicals which are constituents of many of the waste streams handled at the facility. It should be noted however that the composition of waste materials is variable, and MSDS information reported is based upon pure, un-mixed chemicals. The

MSDS documents include approximately 1500 pages of information on approximately 400 materials. Alternatively, Heritage has developed a list of these materials which provides the following information;

Chemical Name
Reportable Quantity
EPA Hazardous Waste Identification Number
Chemical Abstract Service Number
Immediately Dangerous to Life and Health (Exposure Level)
Time Weighted Average (Exposure Limit)
Short Term Exposure Limit
Ceiling Exposure Limit
Boiling Point
Vapor Pressure
Lower Explosive Limit
Upper Explosive Limit
DOT Identification Number
DOT Packaging Group
NFPA Designations

This alphabetical listing is approximately 150 pages long. Should you wish to have the set of MSDS documents or the listing, please contact the undersigned at (708)739-1151.

Heritage will conduct a meeting with local police and fire departments, and hospital personnel in October of 1993. If you are interested in attending this meeting please contact the undersigned in writing expressing your interest. Additional details on the meeting agenda will be provided to those who respond in writing.

Should you have any further questions regarding the attached Plan, please contact the undersigned, or the facility's plant foreman, Paul Zajec at (708)739-1151.

Sincerely,

HERITAGE ENVIRONMENTAL SERVICES, INC.

DRAFT

Robert D. Garcia
Plant Manager

RDG/kmt
Enclosures

ATTACHMENT III

FIRE CONTROL REPORT

FIRE CONTROL, INC.

AUTOMATIC SPRINKLER SYSTEMS
255 Alderman Avenue
Wheeling, Illinois 60090
(708) 459-4570 FAX (708) 459-0849

July 22, 1993

Bob Garcia
Heritage Environmental
P.O. Box 337
Canal Bank Road
Lemont, IL 60493

Dear Bob:

Enclosed please find the test results from the fire pump test performed by us on 6-16-93, together with a copy of NFPA 25.

NFPA 25 is the current recognized standard for the testing and inspection of wet pipe sprinkler systems, and sets forth the minimum acceptable requirements. Furthermore, it is my understanding that your insurance carrier has requested that the fire pump be tested semi-annually.

To the best of our knowledge, no authority having jurisdiction over your plant requires your compliance with NFPA 25, however, we would propose that the approach to be taken to establish a sound test, inspection, and maintenance program, should closely follow this standard.

Referring to the enclosed standard, sections 2 and 5 would specifically apply to your plant, and they require many weekly, monthly, and annual testing, inspection, and maintenance items. Many of these items, mainly annual ones, are rather technical in nature and should be handled by qualified personnel. However, many others are items requiring simple inspections and procedures which could be performed by your personnel to defray the cost of implementing such a program.

We would therefore like to propose the following plan.

1. FIRE CONTROL, INC. would design weekly and monthly checklists of items to be inspected and/or operated and/or maintained, that would be filled out and signed by your personnel. (b) Provide and install identification tags for valves and other items to receive these operations. (c) Instruct your personnel on the proper performance these tasks.
2. FIRE CONTROL, INC. would perform semi-annual full flow and operational testing of fire pump.
3. FIRE CONTROL, INC. would perform complete annual test and inspection of the remainder of the sprinkler system.

We feel the above outline would provide a complete and comprehensive test, inspection, and maintenance program.

Our quote for the above described work is a follows.

Initial setup and implementation as described in item #1		$1,800.00
Semi-Annual fire pump testing	-per occurrence-	$600.00
Annual Test & Inspection	-per occurrence-	$250.00

Should the above proposal meet with your approval, Please sign the acceptance statement below and return the original to our office. I have enclosed a copy for your files.

We wish to thank you for the opportunity of quoting this work. If you have any questions or require any additional information, please feel free to contact me.

Sincerely,

Jesse A. Bentley
FIRE CONTROL, INC.

The foregoing proposal is hereby accepted this_____day of _____, 19__.

_____
Signature

Information on this form covers the minimum requirements of NFPA 25-1992 for centrifugal fire pumps. Separate forms are available to inspect, test and maintain the rest of the fire protection system of which the fire pump is a part. More frequent inspection, testing and maintenance may be necessary depending on the conditions of the occupancy and water supply.

Owner: HERITAGE ENVIRONMENTAL
Owner's Address: P.O. BOX 337, CANAL BANK RD. LEMONT, IL 60493
Property Being Inspected: SAME
Property Address:
Date of Inspection: 6-16-93

This inspection is (*check one*) ☐ Weekly ☐ Monthly ☐ Quarterly ☒ Semiannual ☐ Annual

Note: All questions are to be answered Yes, No or Not Applicable. All "No" answers are to be explained in the comments portion of this form. All responses refer to the current inspection performed on the date shown above.

Part I - Owner's Section

A. Is the fire pump in service? ☒ Yes ☐ No ☐ N/A
B. Has the fire pump remained in service since the last inspection? ☒ Yes ☐ No ☐ N/A
C. Was the system (of which the fire pump is a part) free from actuation of devices or alarms since the last inspection? ☐ Yes ☐ No ☐ N/A
Note to owner: Periodic tests of transfer switches and emergency generators are to be performed by a qualified electrical contractor in accordance with NFPA 110.

Owner or representative *(print name)* _____ *Signature* _____

Part II - Inspector's Section

A. Inspections - All to be performed weekly.

1. Pump house/room at least 40° F? ☐ Yes ☐ No ☒ N/A
2. Pump house/room for diesels without engine heaters at least 70° F? ☐ Yes ☐ No ☒ N/A
3. Ventilating louvers free to operate? ☐ Yes ☐ No ☒ N/A
4. Suction, discharge and bypass valves open? ☐ Yes ☐ No ☒ N/A
5. Piping free from leaks? ☒ Yes ☐ No ☐ N/A
6. Suction and system pressure gauges normal? ☐ Yes ☐ No ☒ N/A
7. Suction reservoir, if provided, full? ☐ Yes ☐ No ☒ N/A
8. Controller indicating power on? ☒ Yes ☐ No ☐ N/A
9. Transfer switch indicating normal situation? ☐ Yes ☐ No ☒ N/A
10. Isolation switch closed? ☒ Yes ☐ No ☐ N/A
11. Reverse phase alarm indicator off or normal phase rotation indicator on? ☒ Yes ☐ No ☐ N/A
12. Oil level in vertical motor sight normal? ☐ Yes ☐ No ☒ N/A
13. Diesel Engine Inspection N/A
    a. Fuel tank at least two thirds full? ☐ Yes ☐ No ☐ N/A
    b. Controller selector switch in Auto position? ☐ Yes ☐ No ☐ N/A
    c. Battery voltage and readings normal? ☐ Yes ☐ No ☐ N/A
    d. Battery charging current readings normal? ☐ Yes ☐ No ☐ N/A
    e. Battery indicators on or failure indicators off? ☐ Yes ☐ No ☐ N/A
    f. All alarm indicators off? ☐ Yes ☐ No ☐ N/A
    g. Record engine running time meter reading. _____ Is this normal compared to previous inspection? ☐ Yes ☐ No ☐ N/A
    h. Oil level in right angle gear drive normal? ☐ Yes ☐ No ☐ N/A
    i. Crankcase oil level normal? ☐ Yes ☐ No ☐ N/A
    j. Cooling water level normal? ☐ Yes ☐ No ☐ N/A
    k. Electrolyte level in batteries normal? ☐ Yes ☐ No ☐ N/A
    l. Battery terminals free from corrosion? ☐ Yes ☐ No ☐ N/A
    m. Water-jacket heater operating? ☐ Yes ☐ No ☐ N/A
14. Steam pressure gauge for steam driven pump reading normal? ☐ Yes ☐ No ☒ N/A
15. Circulation relief valve flowing water while pump churns? ☒ Yes ☐ No ☐ N/A
16. Pressure relief valves operating with proper pressure downstream while pump is operational? ☐ Yes ☐ No ☒ N/A

B. Tests

VERTICAL FIRE PUMP DRAWS WATER FROM CANAL

1. Weekly Test Items

A. Electric Motor-driven Pumps
1. Pump started automatically? ☒ Yes ☐ No ☐ N/A Record starting pressure. N/A psi.
2. Pump run for at least 10 minutes? ☒ Yes ☐ No ☐ N/A Record suction NA and discharge 107 pressure while running.
3. Pump packing gland showing slight discharge? ☐ Yes ☐ No ☒ N/A *Adjust if necessary.*
4. Free from unusual noises or vibrations? ☒ Yes ☐ No ☐ N/A
5. Packing boxes, bearings and pump casing free from overheating? ☒ Yes ☐ No ☐ N/A
6. Record time for motor to accelerate to full speed. N/A
7. For reduced voltage or reduced current starting, record time controller is on first step. N/A
8. For automatic stop controllers, record time pump runs after starting. N/A
9. All times and pressures in Part A acceptable? ☒ Yes ☐ No ☐ N/A

B. Diesel Engine-Driven Pumps N/A
1. Pump started automatically? ☐ Yes ☐ No ☐ N/A Record starting pressure. _____ psi.
2. Pump run for at least 30 minutes? ☐ Yes ☐ No ☐ N/A Record suction _____ and discharge _____ pressure while running.
3. Pump packing gland showing slight discharge? ☐ Yes ☐ No ☐ N/A *Adjust if necessary.*
4. Free from unusual noises or vibrations? ☐ Yes ☐ No ☐ N/A
5. Packing boxes, bearings and pump casing free from overheating? ☐ Yes ☐ No ☐ N/A
6. Record time for engine to crank. _____
7. Record time for engine to reach running speed. _____
8. Engine oil pressure gauge, speed indicator, water and oil temperature indicators all reading normal? ☐ Yes ☐ No ☐ N/A
9. Cooling water flowing from heat exchanger? ☐ Yes ☐ No ☐ N/A
10. All times and pressures in Part B acceptable? ☐ Yes ☐ No ☐ N/A

C. Steam Turbine-driven Pumps N/A
1. Record pump starting pressure _____, suction _____ and discharge _____ pressures while running.
3. Pump packing gland showing slight discharge? ☐ Yes ☐ No ☐ N/A *Adjust if necessary.*
4. Free from unusual noises or vibrations? ☐ Yes ☐ No ☐ N/A
5. Packing boxes, bearings and pump casing free from overheating? ☐ Yes ☐ No ☐ N/A
6. Record steam pressure gauge reading. _____
7. Record time for turbine to reach running speed. _____
8. All times and pressures in Part C acceptable? ☐ Yes ☐ No ☐ N/A

2. Annual Tests

FULL TEST TO BE PERFORMED SEMI ANNUALLY AS PER BOB GARCIA

Annual pump test was run using the following method: (*check one*)

- [X] Method A. Discharge of flow through hose streams. Flow readings taken at each hose stream.
- [ ] Method B. Discharge through by-pass flow meter to drain or suction reservoir. Flow readings taken by flow meter.
- [ ] Method C. Discharge through by-pass flow meter directly returned to pump suction. Flow readings taken by flow meter.

Note: At least once every three years method A or B must be used.

Pump Test Results

	No Flow	Rated Flow	Peak Flow
Suction Pressure	N/A	N/A	N/A
Discharge Pressure	107	75	42
Flow	N/A	1000	1500
Electric Voltage and Current	N/A	493/77	492/82
Pump Speed	1800	1790	1790

Are the values in the above table acceptable? [X] Yes [ ] No [ ] N/A
No-flow (churn) test run for 30 min? [X] Yes [ ] No [ ] N/A
Circulation relief valve and pressure relief valve operated properly during all flow tests? [X] Yes [ ] No [ ] N/A
No alarm indicators or other visible abnormalities observed during no flow test? [X] Yes [ ] No [ ] N/A
D. Low Suction Throttling Device Test N/A
1. Low suction pressure simulated? [ ] Yes [ ] No [X] N/A
Free from abnormalities in throttling action? [ ] Yes [ ] No [X] N/A
2. Free from abnormalities in return to full flow? [ ] Yes [ ] No [X] N/A
E. Automatic Transfer Switch Test N/A
1. Power failure simulated during peak flow? [ ] Yes [ ] No [X] N/A
Connection made to alternate power source? [ ] Yes [ ] No [X] N/A
2. After termination of simulated power failure did motor reconnect to the normal power source? [ ] Yes [ ] No [X] N/A
F. All Alarm Conditions Simulated? [X] Yes [ ] No [ ] N/A
All Alarms Operated? [X] Yes [ ] No [ ] N/A

C. Maintenance

A maintenance schedule must be established in accordance with the manufacturers instructions. In the absence of such a schedule the following must be used: N/A

1. Weekly Maintenance Items for Diesel Engine Systems:
A. Fuel tank level, tank float switch, and solenoid valve operation acceptable? [ ] Yes [ ] No [ ] N/A
B. Diesel fuel system free of water? [ ] Yes [ ] No [ ] N/A
C. Flexible hoses and connectors in fuel and coolant systems acceptable? [ ] Yes [ ] No [ ] N/A
D. Oil level and lube oil heater acceptable? [ ] Yes [ ] No [ ] N/A
E. Coolant level acceptable? [ ] Yes [ ] No [ ] N/A
F. Water pump for coolant system operating? [ ] Yes [ ] No [ ] N/A
G. Jacket water heater for coolant system acceptable? [ ] Yes [ ] No [ ] N/A
H. Exhaust system free of leakage? [ ] Yes [ ] No [ ] N/A
I. Drain condensate trap on exhaust system operational? [ ] Yes [ ] No [ ] N/A
J. Electrolyte level in batteries acceptable? [ ] Yes [ ] No [ ] N/A
K. Connections to electrical system acceptable? [ ] Yes [ ] No [ ] N/A

2. Monthly Maintenance Items
A. Isolation switch and circuit breaker exercised? [ ] Yes [ ] No [X] N/A
B. Battery case clean, dry and free of corrosion? [ ] Yes [ ] No [X] N/A
C. Batteries specific gravity or state of charge passed test? [ ] Yes [ ] No [X] N/A
D. Charger and charge rate passed visual inspection? [ ] Yes [ ] No [ ] N/A
E. Battery charge being equalized? [ ] Yes [ ] No [ ] N/A
F. Circuit breakers cleaned? [ ] Yes [ ] No [ ] N/A

3. Quarterly Maintenance Items
A. Cleaned strainer, filter or dirt leg in diesel fuel system? [ ] Yes [ ] No [X] N/A
B. Cleaned or replaced crank case breather in lubrication system? [ ] Yes [ ] No [X] N/A
C. Cleaned water strainer in coolant system? [ ] Yes [ ] No [X] N/A
D. Insulation acceptable and fire hazards eliminated from exhaust system? [ ] Yes [ ] No [X] N/A
E. Battery terminals clean and tight? [ ] Yes [ ] No [X] N/A
F. Electrical system free of wire chafing? [ ] Yes [ ] No [X] N/A

4. Semi Annual Maintenance Items
A. Manual starting means on electrical systems operated? [X] Yes [ ] No [ ] N/A
B. Antifreeze tested in coolant system? [ ] Yes [ ] No [X] N/A
C. Flexible exhaust section acceptable? [ ] Yes [ ] No [X] N/A
D. Alarms operated on electrical portions of diesel engine systems? [ ] Yes [ ] No [X] N/A
E. Boxes, panels and cabinets on electrical systems cleaned? [ ] Yes [ ] No [X] N/A

5. Annual Maintenance Items
A. Changed pump bearing lubrication? [ ] Yes [ ] No [X] N/A
B. Shaft end play acceptable? [ ] Yes [ ] No [X] N/A
C. Pump coupling alignment acceptable? [ ] Yes [ ] No [X] N/A
D. Transmission coupling, right angle gear drive and mechanical moving parts lubricated? [ ] Yes [ ] No [X] N/A
E. Circuit breakers passed trip test? [X] Yes [ ] No [ ] N/A
F. Emergency manual starting means operated without power? [ ] Yes [ ] No [ ] N/A
G. Electrical connections secure? [X] Yes [ ] No [ ] N/A
H. Pressure switch settings calibrated? [ ] Yes [ ] No [X] N/A
I. Motor bearings greased? [ ] Yes [ ] No [X] N/A
J. Fuel tank free of water and foreign material? [ ] Yes [ ] No [X] N/A
K. Tank vents and overflow pipes free of obstructions? [ ] Yes [ ] No [X] N/A
L. Fuel piping acceptable? [ ] Yes [ ] No [X] N/A
M. Oil and filters changed in diesel systems? [ ] Yes [ ] No [X] N/A
N. Antifreeze changed in coolant system? [ ] Yes [ ] No [X] N/A
O. Heater exchanger cleaned out? [ ] Yes [ ] No [X] N/A
P. Duct work & louvers (combustion air) acceptable? [ ] Yes [ ] No [X] N/A
Q. Exhaust system free of back pressure? [ ] Yes [ ] No [X] N/A
R. Exhaust system hangers and supports acceptable? [ ] Yes [ ] No [X] N/A
S. Control and power wirings tight? [ ] Yes [ ] No [X] N/A

Part III - Comments

(Any "no" answers, test failure or other problems found with the fire pump must be explained here.)

Part IV - Inspector's Information

Inspector: JESSIE BENTLEY
Company: FIRE CONTROL INC
Company Address: 255 ALDERMAN AVE WHEELING, IL 60090

I certify that the information on this form is correct at the time and place of my inspection, and that all equipment tested at this time was left in operational condition upon completion of this inspection except as noted in Part III above.

Signature of Inspector